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TRANSACTIONS

OF THE

MEDICAL SOCIETY

OF THE

STATE OF NEW-YORK.

VOL. III.

1836—1837.

ALBANY:
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1837.

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TRANSACTIONS

OF THE

NEW-YORK STATE MEDICAL SOCIETY.

ART. I. ANNUAL ADDRESS *delivered before the Medical Society of the State of New-York, February 5, 1836, by* JOHN H. STEEL, M. D., *President of the Society.*

GENTLEMEN OF THE SOCIETY.

Having been selected by your suffrages, to occupy a station, the law of which requires the incumbent to deliver a "dissertation on some appropriate subject," it is presumed that no further apology will be deemed necessary for the observations which I am now about to make, in conformity to that law.

With the professed object that "well regulated Medical Societies had been found to contribute to the diffusion of science, and particularly the knowledge of the healing art," this Society was originally incorporated, and the experience of thirty years* evinces the importance and utility of the institution, and furnishes the most satisfactory evidence that, under a proper direction of its concerns, and a due degree of vigilance and perseverance on the part of its members, it is destined to be ranked among the most scientific and useful institutions of our country.

A combination of the interests, talents and experience of the practising physicians throughout this widely extended state, was a project of no small importance to the profession, and evidently formed one of the most prominent inducements which gave origin to the society; but, by reference to its re-

* The law incorporating Medical Societies in each county, and a general State Society, was passed, April 4, 1806.

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cords, it will be perceived, that a large portion of the county societies have not as yet availed themselves of the right conferred by the act of incorporation, to be represented here. A remissness so opposed to the interests of the Society, as well as to the honor and dignity of the profession, will hardly admit of an apology. It is proper, however, to observe, that the omissions alluded to are confined, principally, to the more remote counties; and it is probable that the distance of location may be pled as an excuse for the apparent neglect. Whatever may be the cause, it is unquestionably the duty of the Society to make it the subject of their particular investigation, and, if in their power, to remove all obstacles which may tend to exclude so large and respectable a portion of our professional brethren from uniting in the deliberations, and contributing to the honor and usefulness of the institution.

The flourishing condition of our medical colleges, the zeal and ability of their professors, and the exertion of the county societies, with which we have as yet formed any connection, all indicate an advancement in the knowledge of medical science, and demonstrate the profound respect and veneration that is every where paid to its institutions. It is now, indeed, a rare occurrence for a candidate to present himself for the honours of the faculty, without being well instructed in, not only the popular and leading opinions of the best medical authors of the age, but in all the collateral branches of knowledge which constitute a profound and refined education.

"A circumstance," says a late distinguished writer, "which has materially contributed to the improvement of the knowledge of practical medicine, is the publication of periodical works, whether in the form of journals, or of the transactions of societies. They have brought before the public the daily occurrence of passing events, in a commodious and interesting form, and thus, by exciting attention to them, have tended both to diffuse and to increase our knowledge of these subjects."

The effort now making by this society, to publish an annual volume of transactions, will, if proper support and encourage-

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ment be afforded by the members, furnish a source of useful and entertaining knowledge. No physician of any eminence in his profession, can have practised for any length of time, without having made some observations and discoveries which, if generally known, would add much to both the science and practice of medicine; the importance then of collecting and embodying the numerous details of information thus obtained, must be obvious to every one. It is only from such sources, patronised and supported by a well directed zeal of the profession, that the science of medicine can ever be elevated to its proper rank and station among the great and distinguished institutions of our country.

It is not my intention to dwell on this subject, but I may be permitted to add, that the State of New-York, great in its dimensions, affluent and liberal in its resources, distinguished for its enterprise and improvements, and honored for its great and eminent men, has an envied, but just claim to aspire to the most exalted rank in science and in all the liberal professions; and, if the profession of medicine does not secure her proud and honored station there, it can only be imputed to a want of proper exertion, or to an unwarrantable jealousy and want of union among its members.

While we thus advert to the state and prospects of the profession, let us not neglect to notice, with feelings of respect and gratitude, those eminent and highly distinguished individuals, who in the infancy of the Society, associated themselves together for the purpose of superintending its advancement, and to whose zeal and professional distinction it is much indebted for the important station which it now occupies.

Usefulness, however, with all the honored preferments of life, furnishes no exemption from the grave; and a period of thirty years makes fearful breaches in a community composed of individuals, who, at the commencement of their association, had arrived at the meridian of life. It is not therefore, a matter of much surprise, that many of our valued associates have already finished their labors here and have been gathered to their fathers. The recollection of their usefulness will be cherished and preserved by their survivors, and history

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will record their names to swell the proud catalogue of those whose lives have been devoted to the cause of science and the glory and honour of their country.

With these general remarks, I beg leave to invite the attention of the Society to the consideration of a class of diseases, which have been a source of more anxiety and suffering to the patient, and of more perplexity and disappointment to the physician, than almost any other in the catalogue of human ills. I allude to the Derangement of the Digestive Organs. Although these affections have been amply investigated by many of the most eminent of the profession, and the results of their investigations spread before the public in the numerous publications of the day, yet, if we are allowed to judge from the various modes prescribed in the treatment of these complaints, or to draw our conclusions from the success of the practice, we are led to infer that the pathology of these affections is still less generally understood than many others of a more complicated and alarming character.

It is not consistent with the object of this dissertation, nor can it be deemed necessary by the audience whom I now address, for me to enter into a minute detail of the organs or functions which are called into action by the mysterious operations of the living principle, for the purpose of digesting and assimilating the various substances which constitute the food of animals, into a proper consistence and quality, fitted to traverse the vast ramifications of the circulating system, and thereby furnish the means of sustaining and invigorating the body.

It will be sufficient for the present purpose, simply to observe, that the organs, principally concerned in carrying on the important and interesting operations of digestion, embrace the whole extent of the alimentary canal, commencing at the mouth and terminating at the extreme point of the intestines. The Liver, Spleen, Pancreas, Mesentery, Omentum, and, indeed, the whole contents of the abdominal viscera, are all, more or less directly or indirectly, concerned in the operations of this mysterious process. These organs are composed of various tunics or membranes, designed for the

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performance of various functions. Those of most importance are the serous, the muscular and the mucous membranes, and they are evidently subject to various forms of disease, in some measure, connected with and dependant upon the peculiarities of structure, and these again are believed to be modified by the place of their location, as the stomach, the small intestines, the colon or the rectum.

All animals possess a stomach or canal of some kind,* calculated to receive the food and prepare it for the important purpose of nutrition, and this constitutes one of the principal points which distinguish the animal from the vegetable structure.

Among the various classes of animals, the process of digestion is extremely diversified, and evidently more or less adapted to the circumstances and condition of life which the animal is designed to maintain. In man, the organs are said to be less capacious and complex than those of most animals which subsist only on vegetable food yet larger and more complicated than those of other animals which live entirely on flesh, and hence it is inferred that man is designed by nature, and made capable, for subsisting either on animal or vegetable food, and from the peculiar adaptation of his digestive, as well as of various other organs, is believed to be better qualified for every diversity of aliment and climate, than any other animal.

It is from this peculiar structure of his organs, that we find him, while in a savage or uncultivated state, in all regions of the globe, adapting his wants to the productions which nature most bountifully supplies. In one country, we find him subsisting altogether on the blubber or oil of the whale, the walrus, or the seal; in another country, fruits and nuts constitute his food. Raw flesh, taken fresh from the victim, is devoured by one class of our species, and the same material is kept until it is tainted and becomes highly putrescent, to furnish the daily repast for another; roots and farinaceous

* Cuvier says, that he knows of no animal which is destitute of such an organ.

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seeds furnish the entire nutriment of thousands, and whole tribes are known to subsist on gums and vegetable oils.

But it is reserved for civilized man to multiply and refine the articles of his diet, and to feed on a combination of solids and fluids of almost every description, and such has been his ambition to gratify the taste and satisfy the appetite, through the invention of cooking, mixing, combining, seasoning, spiceing, &c., that he has reserved but a few articles by which he can satisfy the cravings of his stomach with perfect impunity. Numerous substances have been introduced, either in the form of food, or condiments, which are not only innutritious, but absolutely injurious to the organs designed for the purpose of digestion.* It is, therefore, not a matter of surprise that such organs are often deranged, and indeed, when we take into consideration the quantity and frequency with which such offensive articles are presented to them, it is a matter of some surprise that they are ever found capable of performing their proper functions at all.

The great variety of symptoms, consequent upon a derangement of the digestive organs, induced many of the earlier writers on the subject, to divide the disease into an almost endless variety of forms, and the extensive list of names which they have presented to us, intended to indicate the particular form, have served but little else than to distract the practice and prevent a true understanding of the malady,† and the more popular and rational division of the present time, that of *organic* and *functional* derangement, although sanctioned by the best pathologists, is still exceptionable, and in my view, calculated to mislead.

* It is notoriously true, that many of the articles, introduced to the tables of *civilized Society* by what is called the *refinement* of Cookery, are such, that no other animal, whether biped or quadruped, except man, will presume to taste, even under the pains and penalties of starvation.

Dr. Abercrombie, in his "Practical researches on diseases of the stomach and intestinal canal," very justly observes, that "when we consider the manner in which diet is generally conducted, both in regard to quantity and the variety of articles of food and drink, which are mixed up into one heterogeneous mass, instead of being astonished at the prevalence of indigestion, our wonder must rather be, that, in such circumstances, any stomach is capable of digesting at all."

† "So long," says Dr. Armstrong, in his observations on Chronic diseases," "as we attempt to cover our ignorance by such terms as *Nervous*

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Functional derangement is supposed to be that state of disease, in which the office of a particular organ is impaired or deranged, without any perceptible derangement of the organ itself. This position has, in many instances, induced opinions, as to the actual state of the organs in these cases, not always in accordance with the facts and has, of course, led to prescriptions inapplicable, if not absolutely detrimental.

Function is the product or effect produced by the operation of an organized body, or the result of an organic action, and it is impossible to conceive how it can be deranged or altered, except through the derangement of the organ or body which produced it. The function of the heart is the circulation of the blood, and that of the stomach the digestion and assimilation of the food; and can any one suppose that these functions can cease, or suffer the slightest derangement, while their respective organs continue in a state of perfect health and vigor? Let these organs be subjected to diseased action, no matter how slight, or whether from sympathy with that of remote organs, or from the derangement of their own peculiar structure, it is all the same, the functional derangement, which is sure to follow, gives the first indication of the attack, and constitutes the most prominent symptoms which characterise and distinguish organic disease.

Functional derangement then, whether of the digestive, or any of the other organs, is simply the *indication* of structural derangement; it is the symptom or effect, and, pathologically, does not, nor can not, constitute idiopathic disease.*

If then the diseases, which constitute the derangement of the digestive organs, are, strictly speaking, *purely structural*, it is important to inquire, what that condition or state of structure is, which produces those functional aberrations in question.

Bilious, Dyspeptic, Spasmodic, and the like, so long shall our practice be mere experiment in most chronic affections, and," continues this distinguished practitioner, "we shall not, probably, advance in the treatment, until we deduce pathological principles, from cautiously marking the rise and progress of the symptoms and exploring their seats and effects."

* Dr. Abercrombie, whose opinions I have already had occasion to cite, is evidently of a different opinion; he seems to think that there are "cases

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The researches of physiologists have thrown much light on this subject, by demonstrating, beyond the possibility of a doubt, that all those diseases consequent upon structural derangement are, so far as they can be discovered, the effect of morbid irritability, or in other words, diseases of excitement, modified by the peculiarity of structure.

The discovery, from autopsic examinations, that in many cases where the derangement of the digestive organs constituted the most prominent features of the complaint, not the slightest vestige of organic disease could be found, gave origin to the unphilosophical opinion that the functions of the organs might be impaired, while the organs themselves remained uninjured, and led to the belief that many of these affections were dependant on relaxation, weakness or debility of the parts, or organs. But if we are right in the opinion, that functional derangement is entirely dependent upon that of structure, we are constrained to believe that all those affections which indicate a derangement of the digestive organs, whether demonstrable by the dissecting knife or not, are the result of the same proximate cause, irritation or morbid excitement.*

of derangement of a purely functional character or not connected with any change of structure, either in the stomach itself or any of its neighboring parts. "But adds, that "upon the strict principles of pathology, it is extremely difficult to ascertain the exact nature of these functional derangements, as they are merely *impaired actions of living parts*," but concludes that the following points "are not altogether conjectural."

I. "The muscular action of the stomach may be deficient."

II. "There may be a deficiency of the corresponding and harmonious intestinal action."

III. "The various fluids may be deficient in quantity, or morbid in quality."

If mere retarded or accelerated action, constituted disease, it would be very difficult for any one to say when he is well, for there is scarcely an hour in the day when the *action* of the organs are the same. They are constantly excited by exercise, by food, by drink; and they are as constantly retarded by rest, abstinence and the like. If either of these exciting causes are too frequently resorted to or are too long continued, a morbidly increased action, in some one or more of the organs, is the result, and this constitutes disease. The secreted fluids may be either lessened or increased in *quantity* without any diseased action of their respective organs; but when they become *morbid in quality*, they indicate positive *organic derangement.*

* In numerous fatal cases of malignant Cholera, a careful examination of the abdominal vicera afforded no evidence, adequate to account for the phenomena of the complaint or its rapid termination, and yet, I believe, it is satisfactorily settled, that this appalling disease consists principally in an irritation or morbid excitement of the gastro-intestinal tissues, or some one of them.

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Debility, like the derangement of function, is not disease, but the mere evidence of it, or it may, when suddenly induced, operate as an exciting or predisposing cause. It occurs in its purest and most frightful form from the immediate abstraction of large quantities of blood, or the long forbearance of necessary food, but neither case can be considered as constituting actual disease; it is but the effect of a suspension of a portion of the powers of life from simple inanition, and all that is required to be done, is to staunch the blood, or in other words remove the organic lesion, preserve the natural warmth of the extremities, enjoin rest and a suitable but cautious supply of nutritious food, and, unless the vital principle has been too far expended by the long continuance of the cause, the patient, in a few hours, is restored to health and vigor.

Debility, weakness or exhaustion, in its most simple form, is an occurrence of every day's experience, it arises from the exertions, depletions and deprivations incident to the cares and duties of our existence; the organs of locomotion become impaired, and their functions, of course, deranged, for which rest and food furnish the safe and certain remedy. It is extremely doubtful whether the debility, arising from the more complicated and protracted derangement of particular organs, differs, in any essential respects, from that of the most obvious and simple form: both are dependant on organic derangement, and while the causes which produce the morbid state of the organs continue to operate, no remedy will remove the debility.

Physiological researches have demonstrated that the irritability or morbid excitement which constitute the derangement of the organs of digestion, may be situated in various parts of the alimentary canal; as the œsophagus, stomach, small intestines, colon or rectum, and that it is often confined to some one of the structures which compose these organs, as the peritoneal, the muscular or the mucous membranes. It is of importance to ascertain the location of the disease and the particular structure of the organ affected, for these are circumstances which are found greatly to modify the character and symptoms of the disease, and serve to influence our

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judgment as to the result of its termination. In almost all cases, particularly those of recent occurrence, the disease is confined to one particular organ, and frequently to a small surface of that organ, or a portion of some one of its membranes. The excision of an elongated uvula, which had continued for months and produced a considerable degree of irritation about the throat, effected the immediate cure of an obstinate case of indigestion, which evidently had its origin with that of the irritated fauces, and the removal of hemorrhoidal excrescences has, in some instances, produced the same effect, in cases equally obstinate.

It is likewise of importance to acquire a knowledge of the exciting or predisposing causes which give origin to the affection; these are various and extremely diversified in their character, but the details connected with a full enumeration of them, and the mode in which they operate to produce disease, would occupy too large a space for admittance in a communication of this kind; it is proper, however, to state briefly, that they are generally such as are believed to predispose to diseases of excitement in other parts of the system, and which operate to produce that peculiar morbid irritability or susceptibility of organs or parts which render them more liable to be excited by external agents or the operation of ordinary stimuli. Among these are usually enumerated:

Weakness or debility from inanition or over excitement.

Intemperance in the use of nutritious and high seasoned food.

Intemperance in drinking ardent spirits.

The frequent and improper use of drastic and irritating medicines, and particularly those of the class denominated tonic and stimulant.

Improper compression of the body, so as to lessen the aperture of the abdomen and compress the viscera.

Indolence, or the want of proper exercise.—Excessive gluttony.

Filthiness of the exterior surface of the body.

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Eruptions or inflammation of the skin, suddenly dispersed.

There are, probably, many other causes, with the operation of which we are not so familiarly acquainted, among which may be mentioned that of *malaria*, or an exposure to the influence of the causes which are believed to produce intermittent and remittent fevers.

In slight and recent attacks of indigestion, we know but little of the actual state or condition of the organs affected, except what can be gathered from analogy and a careful observation of the symptoms. As persons attacked seldom die in that stage of the disease, cases for autopsic examination are of rare occurrence. We know, however, that inflammation does occur in a variety of forms or degrees of violence on membranes or organs which we can examine, as the slight thickening and morbidly increased secretions of the mucous membrane of the bronchiæ, of the nose, fauces, &c., occurrences which take place every day, and evince, as clearly and as positively, the existence of excessive or increased morbid excitement of the organs, as the most violent attack of inflammation, although not attended by any of its alarming consequences.

These slight affections of the mucous membranes of the organs just mentioned, from a variety of circumstances which it is not necessary to name to the intelligent physician, may, as they frequently do, terminate in ulceration or become chronic, and continue in the same irritable state or condition for years; and may we not, with the utmost propriety, infer that the mucous membrane of the stomach, or any other part of the alimentary canal, may be affected in a similar manner, and continue in that state for a length of time, with but little inconvenience, except an uneasiness after eating, and a slight tenderness about the region of the stomach or in the vicinity of the organ affected—the very symptoms which give the first notice of digestive derangement.

If then the position be acceded to, that indigestion is purely the effect of morbidly increased irritability, or excitement of some of the organs essential to the digestive process, and

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that debility and functional derangement are merely symptoms of that state of the organs, the indications of cure are simple and unequivocal, and must at once present themselves to the mind of the experienced physician. Abstinence from all irritating or stimulating substances, light diet, rest and mild aperient medicines, constitute the whole list of remedies required, and, if enjoined at the commencement of the attack, or before the disease has assumed its chronic form, in ninety-nine cases out of a hundred, will be successful.*

In many cases, however, so insidious is the attack, and so insignificant the symptoms which usher in the disease, that the person afflicted feels no alarm, and experiences but little inconvenience in attending to his usual avocations, and as his greatest disturbance is soon after his meals, particularly after that of a full dinner, he very naturally imputes it to a weakness of the stomach, to remedy which, he swallows an additional glass or two of wine, or what is worse, he endeavors to relieve it by liberal potations of brandy or other stimulating liquors, of an equally pernicious character. He pursues this course, in some instances for months, continuing gradually, but almost imperceptibly, to augment his sufferings rather than to relieve them, until, at length, he loses his appetite, complains of soreness or slight wandering pains, and a sense of tightness about the region of the stomach, his bowels have become constipated or are slightly relaxed, he is harrassed by frequent and excessive turns of belching, and occasionally throws up his food, his strength is much impaired and his flesh fast wasting away.

In this situation he applies to his physician, and, ten chances to one, he is told that his case is one of *debility* or *weak-*

* The opinion of the distinguished Dr. Armstrong is again in accordance with what I have here stated. "The long catalogue of prescriptions," says that accurate observer, "for chronic diseases, at once indicates that all is not right in our pathology, as it implies that each prescription is liable to fail, and that the whole may be successively required. When we have any thing like principles to guide us, our prescriptions are extremely limited; but when we have no fixed principles to guide us, our prescriptions accumulate with empirical rapidity." "This complexity of formulæ" he continues, "undoubtedly arises from that vagueness of opinion which exists respecting the nature of these diseases in their onset and the greater part of their progress".

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ness of the digestive organs; and he is immediately put upon the use of stimulating and tonic medicines, with the avowed design to increase the appetite and restore the *tone* of the stomach, and, as flesh is more readily digested when the stomach is in a healthy condition than vegetables, he is directed to live on a meat diet highly seasoned. He swallows the prescribed articles with avidity, for the directions correspond exactly with his feelings, and serve to confirm his own opinion as to the nature of his disease, and he adheres to them, and pursues them, as a forlorn hope.

Thus he proceeds, and as one class of tonic remedies fail to produce the desired effect, another is substituted, until the whole catalogue contained in the materia medica have been ineffectually resorted to, and when neither the books nor the physician can any longer furnish materials to prolong the now expiring hopes of the patient, he is sent into the country, if a citizen, or if a resident in the country he is posted off to the city, or the sea-board, with almost every organ of the viscera deranged, emaciated to a skeleton, or bloated and distorted by the dropsy, with the proffered expectation that a *change of air* may produce the relief which the skill of the physician and the power of medicine failed to effect. After spending a few weeks with no better success than before, he returns to his home, disappointed and disheartened, by the gradual and sure progress of the disease, to end his sufferings in the grave.

This is not an extreme case, neither is it a fancied one; the occurrence of similar instances are too frequent to have escaped the attention of the most superficial observer, and must have met the notice of every physician of the least practical experience.

Residing, as I have long done, at a place where invalids annually congregate from various and distant parts of the country, and particularly those afflicted with derangements of the digestive organs, a more extensive opportunity, for observation and inquiry, has been afforded, than usually falls to the lot of a physician in ordinary practice, and were I to re-

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count the result of my experience, it would furnish a history as startling to the feelings of humanity as it would be derogatory to the cause of science and the honor of the profession.—I am well persuaded that the idea of debility being disease, is fast receding before the researches of the physiologist and the lights of science, but that phantom of our early reading still continues to hover about our imaginations, and, like the ghost of Banquo, haunts and affrights us at every turn.*

From what has been stated, the following positions may be inferred, which it has been the principal object of the foregoing observations briefly to illustrate.

That the powers of the digestive organs of man, when in a regular and perfect condition, are capable of reducing the most dissimilar and differently constituted materials of food, into a healthy and homogeneous mass, suitable for the circulation and qualified to supply the wants and increase the growth, vigor and strength of the system.

That this property of the organs is the result of structure,

* It is truly surprising, after all that has been published on the subject, with what tenacity numerous and respectable physicians still adhere to the old practice of prescribing *tonics* and *stimulants* in all cases of chronic affections, and particularly those of the digestive organs. There is scarcely an individual who visits the fashionable watering places of our state, but has tested the *bitterness* of the practice to the full extent of the materia medica, and he resorts to "the Springs" under the injunction, to taste none but the *tonic* waters. Fortunately for the invalid, the tonic properties of the waters are, in most cases, too trifling to merit attention, and what little of that property they do possess, is so blended with properties of an opposite character, that little or no effect, of either a good or bad description, can be expected from it. The superior efficacy of the more aperient waters, however, can be attested by thousands of those who have used them with proper discretion.

It was these abuses of the tonic and stimulating medicines which induced Dr. Armstrong to declare, that "from long and unbiassed observation, he was fully convinced, that most of the medicines called *tonics* are either useless or pernicious, and if they were erased from the pharmacopœias, it would be a real benefit to the profession and mankind, for they only serve to mislead the former, and to tantalize or injure the latter. Tonic medicines generally oppress the digestive functions or operate as direct stimulants, and in either case they are improper in convalescence; for by the first, they may destroy the natural appetite, and by the last they may lead to chronic inflammation. So far from such doings being appropriate to a stage of convalescence from acute disease, mild laxatives are most frequently requisite, to preserve a right balance between the ingesta and the egesta; and the practitioner who substitutes the former, will find that his patients will pass better through convalescence, and be afterwards less subject to consecutive attacks of inflammation."

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and cannot be changed, altered or modified in any way, but by an alteration or derangement in the structure itself.

That slight derangements of some of these organs, or their tissues, frequently occur, as in the case usually termed Dyspepsia, for which abstinence and rest constitute a certain and speedy remedy.

That functional derangement is but the symptom of organic disease, on which it is entirely dependant.

That these derangements, however slight, are the result, in all case, of morbidly increased irritability or excitement of the organ or tissue affected, modified and characterised by the peculiarities of structure, and when neglected or improperly treated, advance into acute inflammation, or are converted into chronic affections, and terminate in engorgement, congestion, effusion or ulceration.

That in the treatment of the derangement of the digestive organs, stimulating and tonic medicines are absolutely inadmissible, and in all cases, can have no effect, other than to procrastinate the disease or render it incurable.

That the pathology of organic derangement, the causes which operate to produce it, and the actual state of the organs so far as that can be ascertained, all indicate the propriety of the antiphlogistic treatment, regulated by a sound judgment and a perfect knowledge of the organs or tissues affected.

It will readily be perceived, by those who have examined the subject or have made themselves at all familiar with the writings of modern authors, that in the foregoing observations there is no attempt at novelty or the promulgation of new or speculative opinions; the subject has been thoroughly investigated by individuals whose names alone are sufficient to furnish for their opinions a passport to the mind of the most sceptical, and whose genius and acquirements elevate them far above the common rank of their cotemporaries.

It was about the commencement of the present century, when the medical school at Paris, fostered and patronised by the great genius which swayed the destinies of France, shone with a brilliancy of talents and science which has never been

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equalled. It was there that the apostles of the profession, Chaussier, Corvisart, Desgenettes, Halle, Pinel, Bichat, Broussais, and a host of others, commenced erecting the "Temple of Medical Science" on the enduring foundation of physiological and pathological anatomy.—On this foundation, those who follow them, may build and ornament, but they must not aspire to remove it: it had its origin in the discovery of the "universality of facts" that cannot be controverted.

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Art. II. *Medical Topographical Report of the* County of Tompkins. *Communicated by the Society.*

(Read February 2, 1836)

This county was erected from the counties of Cayuga and Seneca in 1817, and three towns were annexed from Tioga in 1822. It is situated westerly from the centre of the State, and includes part of the dividing ridge between the Chesapeake Bay and the Gulf of St. Lawrence. The waters to the former pass southerly through streams tributary to the Susquehannah river, and those of the latter through streams in various directions, into the Cayuga and Seneca lakes, and from thence through the Oswego river into Lake Ontario. It is bounded on the north by Cayuga and Seneca; east by Cortland and Tioga; south by Tioga; and west by Tioga, and the Seneca lake, which separates it from Steuben; lying between 42°, 16', and 42°, 38' N. Lat. and 0°, 01', and 0° 41' W. Long. from Washington; containing about 580 square miles or 370,000 square acres.

The face of the country—is extremely diversified; in the south, abrupt, elevated sterile hills, intersected with narrow vallies; the centre exhibits a wide valley, while the west, north and east, are rolling. Many delightful and romantic falls, cascades and glens are formed by the streams running into the Cayuga lake, and the valley of its inlet; the most interesting of which are Fall creek, Goodwin's, and Buttermilk falls. The former is situated a mile north of the village of Ithaca, and the same distance south from Port Renwick, the corner of the Cayuga lake. The descent of Fall creek for a mile by a succession of cataracts is 438 feet; 126 feet of which are in one cataract, nearly perpendicular; between the 1st and 2nd, a part of its waters is turned from the bed of the creek into a tunnel, cut through a solid rock the distance of 200 feet for hydraulic uses.

Goodwin's falls are about 8 miles north from Ithaca on

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the west side of the Cayuga lake, are situated on Halsey's or Taghkanic creek near its mouth; the creek is 60 feet wide and the perpendicular fall is 200 feet, the rocks on each side rising 360 feet. Buttermilk falls situated 1¼ miles south from Ithaca, are formed by a small creek taking its rise in Danby and emptying into the Inlet.

Lakes, Rivers and Morasses.—The south end of Cayuga lake and the east half of the south end of Seneca lake lie in this county; the former penetrates to the distance of about 20 miles, and is from 2 to 3 miles wide; the latter about 10 miles, and is in width from 1 to 2 miles; both lakes are very deep, and their pure waters never freeze but a short distance from the shore.

There are no streams of sufficient magnitude to obtain the appellation of *River*, none whose length, in the county, exceed 12 or 15 miles, and, in the common language of the country, they are called *Creeks*; the largest is the Cayuga Inlet, which as its name imports, discharges its waters into the head of the Cayuga lake; it runs in a northerly direction. The others which empty into the Cayuga lake or the Inlet, are Six Mile Creek, Five Mile Creek, Cascadilla, Fall creek, Salmon creek, Taghkanic or Halsey's creek, and Trumansburg creek; the above streams run in various directions. Small branches of the Owego, Catetant, and Cayuta creeks rise in this county, and running southerly empty into the Susquehannah river; several small streams rise on the west side of the dividing ridge between the Seneca and Cayuga lakes, run westerly and empty into the former lake; all the streams flow with great rapidity, furnishing excellent sites for mills, excepting about 5 or 6 miles of the inlet. There are no canals in the county.

The only morass, bog or swamp, of any considerable extent, is in the Ithaca valley. This valley, in which the village of Ithaca is situated, is about 5 miles in extent from north to south, about one mile wide at its southern extremity, gradually widening to two at its north end. It is bounded on the north by the Cayuga lake, enclosed on the east and

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west by two high hills, and loses itself in the south among the hills of Danby and Newfield. It is formed by the recession of the lake, and the washing down of the surrounding hills, and in its natural state was one continued swamp, thickly covered with black ash, alders and other timber, common to swamps. The first buildings were erected about the centre of the east side of the valley upon small alluvial depositions, formed by the Cascadilla and Six mile creek as they emerged from the hills. The industry of man has removed more than three fourths of the forests of this valley, which by admitting the rays of the sun, by channelling the courses of the creeks, and by ditching, have reclaimed the lands, and a continuance of the same causes will in a few years render the whole valley a fertile spot, free from pools or stagnant waters.

Mountains.—There are strictly no mountains; in the south part of the county there are high ranges of hills, running nearly north and south; which followed in a S. W. direction, terminate eventually in the Alleghany mountains. The most elevated are in the towns of Danby and Caroline, at the height of about 1,100 ft. above the Cayuga lake; and 1,470 above the Hudson river at Albany. The times during which they are covered with snow, are various; in the winter of 1806–7 it was five months; some winters since, not three weeks. Snows fall deeper and lie longer on these hills, than on the tract of country between the lakes, or in the Ithaca Valley. It is not known that they have any influence upon the general currents of the wind.

Geological Structure.—The substratum on which the county is based, is of transition formation; chiefly a horizontal slaty graywacke rock, with occasional compact strata; and partly a horizontal Calciferous slate, embracing beds of gypsum (sulphate of lime)—or perhaps it may be called a hermaphrodite rock; in which at some places the former, and at other places, the latter predominates. Fragments of primitive rock, chiefly granite and gneiss, are scattered over the surface; and also transition and secondary limestone. At several places, at the points, where the creeks enter the Ith-

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aca Valley, silicious rocks are being formed, the cementing process is continually progressing.

The soil covering the rock in the south part is, on the hills clay, sand, and small stones firmly cemented together, forming that peculiar soil known by the name of hard pan; in the vallies, clay and gravel; and the whole lightly covered with loam and vegetable mould. The Valley of Ithaca is alluvial; consisting of loam, gravel, clay and vegetable mould, the residue of the county is loam, (in the formation of which, clay rather predominates) and vegetable mould; making a soil peculiarly adapted to the growing of wheat, of which quantities are grown; small beds of sand are occasionally found scattered over the whole county.

The timber is principally white pine, hemlock, white and black oak, birch, sugar and soft maple, basswood, chesnut, white and black ash, hickory; some white wood, cucumber, cherry, quaking ash, butternut and sycamore.

The water in wells, is generally hard, containing carbonate of lime in greater or less quantities; in springs, creeks and lakes, pure. There is a medical spring in the town of Dryden about 10 miles east from the village of Ithaca and it is acquiring some celebrity in the cure of dermal affections, and another on six mile creek a mile or two S. E. from Ithaca; the waters of neither have been analyzed.

State of Agriculture.—The county contains as before stated, 370,400 acres. In 1825 there were 135,342 acres improved, being about 34 per-cent, leaving wild 235,058 acres. In 1835 there were 186,180 acres improved, being 50½ per-cent and an increase in ten years of 50,838 acres or 16½ per-cent. The improved lands are divided into two kinds, grazing and plough land; in the south part the former, and in the north and middle parts, the latter prevails. The various kinds of grasses common to grazing countries grow freely, and in many places luxuriously; the foreign grasses, are chiefly red clover, timothy or herds grass, and red top. White clover is indigenous; and spontaneously co-

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vers the soil, wherever the forests and shrubs are removed; very little of the bog or wild grass is to be found.

Wheat, is the staple of the county; rye, oats, maize, and potatoes are freely grown, and small quantities of flax and barley. The domesticated animals, and for consumption, are horses, neat cattle, sheep, swine, and a few goats and mules.

Beasts, Birds, and Fishes.—There were formerly beaver, elk, bears, wolves and panthers, which have disappeared with the extensive forests; there remain, deer, foxes, wild cats, woodchucks, otters, muskrat, minks, rabbits, hedge-hogs, weasels, squirrels, (red, black, grey and striped,) moles, field and house mice. Skunks and rats have immigrated; the former appeared about 1805; the latter about 1802, and were brought from Albany in boats.*

The principal birds are eagles, hawks, owls, partridges, various species of woodcock, blue jays, robins, crows, ravens, pigeons, black birds of different kinds, sparrows, and several species of duck, among which, the shell drake stand the most conspicuous. Quails immigrated about 1802. Among the fishes are found trout, white-fish, sun-fish, cat-fish, eels, bull-heads, perch, shiners, gold-fish, chubs, rock and black bass, suckers, lake herring, salmon, pike, pickerel, and the salmon or lake trout, weighing some as high as 15 or 20 lbs.

Inhabitants.—This county was settled in 1789. The immigrants are chiefly from the eastern counties of this State, New Jersey, Pennsylvania, Connecticut and Massachusetts; though England, Scotland, Ireland, France, Germany, Virginia, Carolina and Maryland have contributed to its population. The population in 1825 was 32,908, being 56,74 inhabitants to a square mile. In 1835 it was 38,008, being 65,53 inhabitants to a square mile, and an increase of 15½ per cent in ten years.

*An intelligent gentleman related to me, that some thirty years since, he was riding in Onondaga county, easterly through a forest on a moonlight night, and met something advancing toward him having the appearance of a shadow from a small cloud obscuring the moon, but upon looking up, the sky was perfecty clear; and he was much astonished, when meeting the moving body, he found it to be, a large company of *rats*, going "Westward, Ho."

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In the village of Ithaca which contain about 4,000 persons the population is dense; in the rest of the county scattered, except in some small villages. The dwellings are of all descriptions, from the log hut to the elegant brick mansion, all well ventilated, and with the exception of the primitive huts well lighted; few families are without feather beds, and the necessary warm clothing for winter; furniture is as various as the different degrees of wealth and refinement, being of all grades from the splendid mahogany locker, escrutoir, and chairs, the elegant Grecian sofa, and Brussels carpet, to the rough pine table and plank stool. The houses are warmed in the villages chiefly with stoves, in the country principally with fire-places; wood is the article of fuel, with very few exceptions in favor of coal. The greatest number of inhabitants are employed in agricultural pursuits, many in various mechanical occupations, and some in manufactories.

Diet.—Bread, potatoes, pork, beef, fish, milk, butter and cheese, are the chief nutritives with adults, animal food combined with vegetables is generally taken with the morning and meridian meals; the evening meal is vegetables with butter, tea or milk. The animal food chiefly consumed by the farmers is pork and beef salted. In villages supplied with a daily market, fresh beef, mutton, veal, and various kinds of fish, fresh and salted are considerably used; children are fed much in the same manner, except that a greater quantity of milk, and bread in its various preparations is used; there are none so poor as to suffer from hunger, and all have plenty of fresh air and exercise.

Medical Botany.—The botanical department contains many and valuable medicinal agents; and most cases that occur in the ordinary practice of the physician, *might be*, successfully combatted, without resorting to the shop of the apothecary. The following are to be found, viz:

Indigenous.—Acorus Calamus, (sweet flag,) root, aromatic, stimulant.

Agaricus Narcoticus, (mushroom,) narcotic.

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Allium Trifiorum, (leek,) whole plant, expectorant, stimulant, emollient.

Alnus Glauca, (black alder,) bark, tonic.

Althea Officinalis, (marsh mallows,) whole plant, demulcent, emollient.

Anthemis Cotula, (mayweed,) stalk, leaf and flowers, tonic secernant, stimulant.

Aralia Hispida, (sarsaparilla,) stalk and leaf, anti-syphilitic, anti-scorbutic.

Aralia Spinosa, (prickly ash,) bark, diuretic, deobstruent, sudorific.

Arbutus Uva Ursi, (bear berry,) stalk and leaf, diuretic, supposed lithontriptic.

Arctium Lappa, (burdock,) root, aperient, diuretic, secernant, stimulant.

Aronia Arbutifolia, (red choakcherry,) berries, astringent.

Asarum Canadense, (white snake root,) root, aromatic, stimulant.

Asclepias Syriaca, (milkweed,) root; strong diuretic.

Arum Triphyllum, (wild turnips,) fresh roots, stimulant anti-spasmodic, astringent.

Betula Lenta, (black birch,) bark, tonic, astringent.

Boletus Igniarius, (pine touchwood,) dry, tonic.

Caltha Flabellifolia, (cowslip,) leaf, diuretic, esculent.

Cardamine Pennsylvanica, (water cress,) stem and leaf; stimulant, diuretic.

Chelone Glabra, (snake head,) stalk and leaf; cathartic, tonic.

Chimaphila Maculata, (wintergreen,) leaf and berry; tonic, diuretic.

Chimaphila Umbellata, (prince's pine,) stalk and leaf; tonic, diuretic.

Chenopodium Anthelmenticum, (wormwood,) seed; anthelmintic, leaf and stalk; tonic, bitter.

Chenopodium Botrys, (oak of Jerusalem,) stalk and leaf; stimulant, sudorific.

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Comptonia Asplenifolia, (sweet- fern,) stalk and leaf; anthelmintic, astringent.

Coptis Trifolia, (gold thread,) root; tonic bitter, astringent, used for gargles.

Convallaria Multiflora, (solomon seal,) root; sudorific, mild tonic.

Cornus Florida, (dogwood,) bark, tonic, astringent; antiseptic.

Crypta Minima, (purslane,) stalk and leaf; emollient, vulnerary.

Cerastium Vulgatum, (chickweed,)

Datura Stramonium, (thorn apple,) stalk, leaf and seed; narcotic, stimulant.

Dirca Palustris, (moosewood,) bark, tonic, epispastic if fresh.

Equisetum Hyemale, (scouring rush,) whole plant; strong diuretic.

Epilobium Latifolium, (beech drops,) astringent.

Erigeron Philadelphicum, (flea bane,) stalk and leaf; diuretic, sudorific.

Erythronium Americanum; (adder tongue,) leaf; weak sudorific.

Eupatorium Perfoliatum; (boneset,) stalk and leaf; emetic, secernant, stimulant.

Geranium Maculatum, (cranes bill,) stalk and leaf; astringent.

Hedoma Pulegioides, (penny royal,) stalk and leaf; aromatic stimulant.

Hepatica Americana, (liverleaf, liverwort,) leaf, tonic, diuretic, expectorant.

Hypericum Perforatum, (St. John's wort,) stalk and leaf; tonic, vulnerary.

Ictodus Foetida, (skunk cabbage,) leaf and spadix; antispasmodic.

Iris Prismatica, (blue flag,) root; emetic, hydragogue.

Juglans Cinerea, (butternut,) bark, cathartic, epispastic, if fresh.

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Kalmia Latifolia, (laurel,) leaf; narcotic, tonic.

Laurus Benzoin, (spice bush,) twigs; tonic, secernant, stimulant.

Laurus Sassafras, (sassafras tree,) bark of root; stim. aromatic; secernant and renal stimulant.

Liriodendron Tulipifera, (white wood,) bark, tonic.

Lobelia Inflata, (eyebright,) stalk and leaf; stim. emet. secernant, stimulant.

Lycopus Virginicus, (bugle weed,) stalk and leaf; astringent, tonic.

Magnolia Acuminata, (cucumber tree,) bark and cone ament, bitter tonic.

Macrotys Racemosa, (cohush,) root; deobstruent, tonic, anodyne.

Melissa Officinalis, (balm,) leaf and stalk; weak tonic.

Nyssa Multiflora, (pepperidge tree,) bark; weak tonic.

Oxalis Acetosella, (sorrel,) leaf; febrifuge, diuretic, emollient.

Panax Quinquefolia, (ginseng,) root; weak stimulant.

Pinus Canadensis, (hemlock tree,) twigs, renal and secernant, stimulant.

Pinus Pendula, (tamerack,) sap; vulnerary, stim. laxative diuretic.

Pinus Strobus, (white pine,) sap; vulnerary stim. anthelmintic.

Platanus Occidentalis, (button wood,) bark; tonic, astringent.

Plantago Major, (plantain,) leaf; diuretic, emollient.

Polygala Senega, (seneca snake root,) root; emetic, expectorant.

Phytolacca Decandra, (poke weed gargot,) root; emetic cathartic used externally in diseases of the skin.

Prunus Virginanus, (wild black cherry,) bark; tonic, deobstruent, gum, expectorant.

Pteris Aquilina, (common brake,) stalk; secernant stimulant.

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Pteris Atropurpurea, (hog brake,) root, mucilaginous demulcent.

Pyrola Rotundifolia, (shin leaf,) leaf, fresh; vulnerary.

Quercus Alba, (white oak,) bark; astringent, tonic.

Rhus Glabrum, (sumach,) bark of root; tonic, astringent.

Rhus Toxicodendron, (poison vines, running mercury,) stalk and leaf; seed, diuretic rubefacient.

Rhus Vernix, (poison sumach,) bark and leaf; rubefacient.

Ribes Floridum, (wild black currant,) root; astringent.

Rubus Occidentalis, (black raspberry,) fruit; febrifuge.

Rubus Trivialis, (dewberry,) roots; astringent, tonic.

Rubus villosus, (blackberry,) root; astringent, tonic.

Rumex Cripus, (dock,) root; astringent, diuretic, perpetic ointment.

Salix Vitallina, (yellow willow,) bark; tonic, astringent.

Sanguinaria Canadensis, (bloodroot,) root; emetic narcotic, stimulent, tonic, escharotic.

Sambucus Canadensis, (blackberry alder,) berry and flower; laxative; root and bark, hydragogue.

Solanum Dulcamara, (bittersweet,) bark; cath. renal and secernant, stimulant, stimulant ointment.

Scutellaria Laterifolia, (scullcap,) supposed antihydrophobia.

Tilia Glabra, (basswood tree,) green twigs, demulcent, emollient.

Triosteum Perfoliatum, (bastard ipecac,) root; emetic, cathartic, diuretic.

Typha Latifolia, (cattail,) root; demulcent, emollient, excellent.

Ulmus Fulva, (slippery elm,) bark, demulcent, emollient, excellent.

Urtica Dioica, (nettle,) stem and leaf; diuretic, rubefacient.

Uraspermum Claytoni, (sweet cicely,) root; aromatic, anti-spasmodic.

Veratrum Viride, (itchwood,) stalk and leaf; stim. emetic cathartic, dermal ointment.

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Viola Odorata, (violet,) stalks; laxative; petals, chemical test.

Exotic and Naturalized.—Allium Cepa, (onion,) root, stim. expectorant, diuretic, rubefacient.

Allium Sativum, (garlic,) root, stim. expectorant, diuretic rubefacient.

Althea Rosea, (hollyhock,) emollient, aperient.

Anethum Foeniculum, (fennel,) seeds, aromatic tonic, carminitive.

Anethum Graveolens, (dill,) seeds, aromatic tonic, carminiotive.

Angelica Atropurpurea, (angelica,) seeds, aromatic tonic, carminative.

Anthemis Nobilis, (chamomile,) flowers, tonic, sudorific, carminative.

Apium Petroselinum, (parsley,) root, diruetic, leaf, condiment.

Aralia Racemosa, (spikenard,) stalk and leaf, tonic expectorant.

Artemesia Absynthium, (wormwood,) stalk and leaf, stim. anthelmintic.

Asparagus Officinalis, (asparagus,) root, strong diuretic.

Avena Sativa, (oats,) seeds, demulcent.

Berberis Vulgaris, (barberry,) bark, deobstruent, aperient, berries, cooling febrifuge.

Brassica Oleracea, (cabbage,) leaf, rubefacient, esculent.

Calendula Officinalis, (marygold,) leaf and flower, weak tonic.

Capsicum Annuum, (red pepper,) pod, condiment, stim. rubefacient.

Carum Carui, (caraway,) seed; stomachic, carminative, tonic.

Coriandrum Sativum, (coriander,) seed; stomachic, carminitive, tonic.

Cochlearia Armoracia, (horse radish,) root; dinretic, root and leaf, rubefacient.

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Conium Maculatum, (poison hemlock,) stalk, leaf and seeds; narcotic, resolvent.

Crocus Officinalis, (saffron,) flowers, aromatic, stimulant, antispasmodic.

Cynara Scolymus, (artichoke,) leaf, diuretic.

Daucus Carota, (carrot,) root; sedative cataplasm.

Dianthus Caryophylus, (pink,) aperient.

Humulus Lupulus, (hop,) flowers, tonic, anodyne, diuretic.

Hyssopus Nepetoides, (hyssop,) stalk and leaf; expectorant, secernant, stimulant.

Inula Helenium, (elecampane,) root mild stimulant

Lactuca Sativa, (lettuce,) dried juice, all the properties of opium.

Lavendula Spika, (lavender,) stalk and leaf; aromatic stimulant.

Leontodon Taraxacum, (dandelion,) root, strong diuretic.

Leonurus Cardiaca, (motherwort,) stalk and leaf; antihysteric.

Lepidum Sativum, (pepper grass,) stalk and leaf; tonic, stimulant, esculent.

Lilium Candidum, (white lily,) root, mucilaginous demulcent.

Linum Usitatissimum, (flax,) seed, demulcent, expectorant.

Marrubium Vulgau, (horehound,) stalk and leaf, sudorific, diuretic, stimulant.

Mentha Sativa, (spear mint,) stalk and leaf; carminative, stomachic, stimulant.

Mentha Piperita, (peppermint,) stalk and leaf; carminative stomachic, stimulant.

Mirabilis Dichotoma, (four o'clock,) cathartic, emetic.

Nepeta Cataria, (catnip,) stalk; secernent, stimulant.

Nicotiana Rustica, (tobacco,) leaf; narcotic, cathartic, emetic.

Papaver Somniferum, (poppy) juice; stim. anodyne, narcotic, antispasmodic.

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Paeonia Officinalis, (peony,) root; anthelmintic.

Pseudo Narcissus, (daffodil,) leaf; weak tonic.

Pyrus Cydonia, (Quince,) seed; demulcent, fruit, febrifuge.

Rheum Palmatum, (rhubarb,) root, cathartic.

Ribes Rubrum, (red currant,) fruit; cooling febrifuge.

Ricinus Communis, (palma christi,) expressed oil, cathartic.

Rubia Tinctoria, (madder,) root, emenagogue, tonic.

Rosa Gallica, (rose,) petals, astringent.

Ruta Graveolens, (rue,) stalk and leaf; stimulant, tonic, narcotic, rubefacient.

Salvia Officinalis, (sage,) leaf; stim. carminative, tonic diuretic.

Satureja Hortensis, (summer savory,) leaf and stalk; stim. carminative.

Secale Cornutum, (ergot,) emenagogue, parturient.

Sempervivum Tectorum, (houseleek,) stalk and leaf, emollient, vulnerary.

Sinapis Nigra and Alba, (yellow and com. mustard,) seed, stimulant, emetic, diuretic; rubefacient.

Symphitum Officinale, (comfrey,) astringent, vulnerary, emollient.

Tanacetum Vulgare, (tansey,) stalk and leaf; tonic menagogue, anthelmintic.

Thymus Vulgaris, (thyme,) stalk and leaf; weak, tonic.

Morals and Education.—There are 11,737 children between the ages of five and sixteen years; 12,240 are taught in the common schools, and about 350 in the academy and private select schools. A deep interest is felt throughout the county on the subject of education; societies for its promotion are formed: it is not very common to see a person above 12 years of age that cannot both read and write, many have attained the more elevated ranks of literature, and are highly intellectual.

The morality of the county is based upon the christian reli-

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gion; its precepts are rationally practised by so great a number, as to give a high tone to morals; and those who are not so guided, from a sense of self respect, a laudable desire of respectability, and from regular habits, are generally restrained from gross immoralities, and improper or unbecoming conduct. There are about 50 large religious societies; every family is supplied with a bible. The exertions of temperance societies, have had a decidedly beneficial influence in lessening the consumption of intoxicating drinks.

Diseases.—The diseases which prevail principally in the spring and latter autumnal months, are rheumatism, peripneumonies, and other pulmonic affections; in the summer and early fall months, synochus, typhus, and intermittent fevers, dysenteries, and other diseases of the intestinal exhalent tissue. Goitre is the only *endemic disease* which I have always found on the dividing ridge between the waters of the Atlantic Ocean and the Lakes; females of 14 years of age and upwards are generally its subjects. Previous to the introduction of iodine, calcined sponge and mercurial frictions were used, and were generally efficacious; the former named medicine has since been substituted with equal effect. The following epidemics have prevailed: Pneumonia Typhoides prevailed in 1812 and 1813; Scarlatina, Cynanche Maligna, first appeared in 1830; Influenzas, Rubeola, Cynanche Parotidœa and Pertussis, have prevailed at various periods which are not now recollected; the Asiatic Cholera has never prevailed in the county. There are a greater number of Rheumatic affections in proportion to the number of inhabitants, and fewer cases of Phthisis, than in the same latitude on the Atlantic coast. The profession holds a highly respectable standing in society; the community, with very few exceptions, give it their full and unlimited confidence, and still fewer of its members abuse that confidence. The literary and scientific acquirements of the members of the medical profession of the county, though not of the high order of the professors of our medical institutions, are yet *respectable. All are legally qualified;* many have been educated in our public insti-

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tutions; most keep equal pace with the progress of the science, and the average practical and useful medical intelligence of this county will not suffer in comparison with any other in the state. WILLIAM BACON.

Reference is made to the report of the Regents of the University to the Legislature for a Meteorological table for the county. W. B.

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Art. III. *Report of a* Committee *of the Society on the* Varioloid, *and the means of counteracting its progress.*

(Read February 3, 1836.)

The committee appointed to examine into the causes of the frequent occurrence of Varioloid or Small Pox, within the last few years, in various parts of our country, among persons, who had been protected by vaccination; and to report on the best means of counteracting the evils consequent upon that state of things, having given the subject the consideration their time and circumstances have permitted, beg leave to offer the following report.

From the frequent occurrence of varioloid, within the last few years, strong doubts have been and are still entertained, by a portion of the medical public, as to the integrity or the purity of the vaccine virus. Indeed, the idea of its degeneration has become a matter of considerable notoriety; and hence some have argued that we must return to inoculation with variolous matter or resort to the cow again to obtain genuine cow-pox matter.

But this latter alternative is easier proposed than done: for M. Bousquet and others assure us, that the cow-pox as found in the cow, in an exceedingly rare disease. M. Bousquet has never known an authentic case of it in France, and it is said not to have been met with in England during the last twenty-five years.

The same gentleman assures us, that the vaccine has not degenerated. He says, "could I lay before the profession the entire correspondence of the academy of medicine, it would be seen, that for one who asserts, more than a hundred deny its degeneration; and the latter are those who have made vaccination their study, and who have incessantly practised it; thus both facts and opinions concur to prove that the vaccine has lost none of its value."

That we may be able to appreciate fairly the value of the

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opinions of medical writers and medical practitioners upon this, as upon all other matters connected with the science of medicine, we may mention that M. Bousquet was several years secretary to the Royal Academy of Medicine in France, and vaccinating physician to the same institution for the period of ten years, during which time he vaccinated twice a week. He had thus ample opportunities for making the necessary trials and experiments upon the important subject of vaccination. By an order from the government, he prepared a treatise on the vaccine disease, which was published at Paris in 1833. This work was examined before its publication by Messrs. Husson, Itard, and Chantourelle, who state in their report, that "it was more complete than any other, and that it gave, in their judgment, the best views of the actual state of our knowledge of the subject." If these views be true, and we believe they are in accordance with those entertained, by several distinguished medical writers and experienced practitioners, it would seem needless to attempt to renew the vaccine from its primitive source, the cow; and for the reasons above stated, it is fortunate that it is so.

The question of revaccination as might have been expected, has occupied, and still occupies, much of the attention of the physicians in various parts of Europe and our own country. In Prussia, we find from Rust's Magazine, a circular dated at Berlin, March 15th, 1833, signed by the chief of the military medical staff, declaring that the results of revaccination of the army as already effected fully proved its necessity; it appearing that in the guards alone, 1,425 out of 2,641 exhibited the true vaccine pustule. The order therefore for revaccinating all the recruits is made absolute, and the physician-in-chief of every division is required to procure and collect from the several regimental surgeons, correct lists of all the men who have been revaccinated, as well as every circumstance coming under their observation connected with the small-pox, and to report the results every year to the royal military council.

This is followed by a statement, entitled "Collection of

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the reported results of revaccinating the army." "Whereas a number of individuals have been attacked with small-pox and have died in consequence, notwithstanding that strongly marked scars unquestionably proved their having been vaccinated at an early age, it is nevertheless apparent that in advanced years they still are liable to be infected, and that such is likely to be the age at which they can be admitted to military service." Hence on the representation of this fact by the chief staff physician to the commander in chief of the army, an order was issued on the 26th March, 1831, to all the medical officers of the army for the re-vaccination of all the men who may appear to be possibly liable to suffer, as well as all the recruits whatsoever, whether they have marks of previous vaccination or not.

This order was attended to, by the several corps which it reached as far as it could be effected and with the following results. In the 3d corps of the army, being at Erfurt in 1831, where the small-pox was raging, the 24th regiment of infantry and the fusileers of the 20th were re-vaccinated and out of 6,020 men 2,354 exhibited pustules; among which more than $\frac{1}{8}$ proved to be of the true vaccine character. In the 8th corps, 2,784 were vaccinated, and 925 took, among which also about $\frac{1}{8}$ proved to be genuine cow-pox.

In 1832, 3,942 of the 3d corps were vaccinated, and 1,594 exhibited effects, but as in the rest, somewhat more than $\frac{1}{8}$ were true vaccine. In the fifth corps, of 3,234 vaccinated, 2,535 were effected in the aforesaid proportion. The report goes on to say, "There are great doubts of the extent of the protective agency of vaccination, either from the possible failure of the original vaccination, or from the effect wearing out by time; at all events enough is established to prove the necessity of the measure, and it is notorious that after the re-vaccination of the doubtful men and the new recruits of the fusileers battalion at Erfurt, not one became infected although closely in contact, with very many violent cases of small-pox." Now without intending to compliment Prussia, we cannot withhold our expression of her being as

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much in advance of other nations in the important matter of re-vaccination as she is in her superior system of public school education.

In France too, the question of revaccination has engaged, and still elicits the attention of the physicians not only in the capital but in most of the towns throughout the provinces.

The academy of medicine has appointed a committee to examine all the doubtful points, connected with the subject, before giving any decided judgment, and from time to time various communications are addressed to that body from practitioners residing in the provinces. Among the number is M. Lurott, a physician residing at Bischwiller, who has made several experiments, the results of which possess great interest. Within a period of four years this physician has vaccinated no less than 3,600 persons; and in the year 1832, when an epidemic varioloid attacked the Canton, he had occasion to repeat the operation on several individuals. Eighty-six persons of both sexes who had all been vaccinated during infancy presented themselves for a second vaccination; he says, "with the exception of one or two, their arms were well marked with the vaccine cicatrix in a perfect form."

The following table gives the results of the operation which was performed by introducing the matter through seven or eight punctures on one arm only.

Individuals vaccinated below 10 years of age.		Perfect eruption.	Incomplete.	False.
	12	0	5	7
From 10 to 20,	36	5	12	19
20 to 30,	32	5	12	15
30 to 40,	6	2	2	2

We are informed that the column of perfect eruption embraced all the individuals in whom the pustules were developed three or four days after the operation had been performed, assuming the true character of the vaccine pustule, and following the same march, with this sole difference, that the duration of the secondary eruption was sometimes two days later than that of a true primary one.

The formation of the pustules, was always attended by a secondary fever, and they did not fail to leave a well marked cicatrix behind them.

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The column of incomplete vaccine embraced those in whom the punctures were covered with pustules on the second or third day; but these always assumed an irregular form, terminating in a sharp elevated point, were filled with a dirty yellow serum, and faded on the sixth or seventh day without being attended by fever or leaving any trace on the arm.

From the foregoing trials it will be perceived, that of *eighty-six* individuals re-vaccinated, twelve presented examples of a second eruption so regular and perfect, that it was impossible to distinguish it from the primary vaccine.

Perhaps it may be here objected that the first vaccination was imperfect and ill done. But M. Lurott affirms that two thirds of these patients at least, presented vaccine cicatrices so deep and well defined, as to leave no doubt of the efficacy of the primary operation, "and we are entitled," to use the language of the London Lancet, from whence by the way this part of our report is taken, to conclude with him (M. Lurott) "that these individuals exhibited examples of two distinct and perfect eruptions of Vacciola."

As to the interval of time which elapsed between the two operations and the results which follow from this portion of the table, M. Lurott observes:

Firstly; That before the age of ten years revaccination has never in his hands produced any thing but a false vaccine; he has never been able to develope a true and complete eruption when the interval between the two operations was so short.

Secondly; That above the age of ten years, revaccination has in a certain number of cases completely succeeded.

The proportion of cases in which the operation gave rise to a second eruption, seems in a direct ratio with the interval which elapses between the first and second vaccinations; the longer the interval the greater the chance of success. Thus in some cases the first vaccination which we performed, in the language of M. Laurott, although perfectly well done, has only a preservative effect of a temporary nature, and is

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limited to a certain number of years. This seems to be the true solution of the question: But what is that limit?

Here our answer cannot be so precise, for it varies according to individual constitution; but from the experiments of M. Lurott, the effect would seem to last for at least ten or fifteen years after the first vaccination.

A question proposed by the French academy of medicine, and which has not yet been satisfactorily answered, has also been investigated by M. Lurott, though perhaps in a limited degree, viz: Will the vaccine matter taken from the pustule of a secondary eruption produce a true primary vaccine disease?

The author answers in the affirmative on the faith of some experiments, one of which we quote, as it seems very decisive. Mademoiselle Bourguignor, aged 19 years, who had been vaccinated for the first time at the age of seven months, the traces of which were exceedingly well marked on both arms, was re-vaccinated November, 1832. On the 7th day after the eruption the left arm exhibited pustules of a complete eruption; a few drops of matter were extracted from these and a portion was introduced on the same day into the right arm of a healthy child four years of age; six punctures were made; a quantity of virus taken from another child who had been vaccinated for the first time was introduced into the left arm of the same infant by an equal number of punctures. The boy thus vaccinated in both arms, was brought to M. Lurott for examination on the seventh day. The vaccine pustules were equally perfect on both sides. The progress of the eruption for both was exactly the same and the cicatrices which remained were as deep on one arm as on the other. The virus collected separately from both sets of pustules, was afterwards inoculated into different individuals and gave similar results.

From these and other facts bearing directly on this subject, we are entitled to conclude that revaccination furnishes a matter as efficacious as that produced by a primary vaccination.

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Indeed, we have the analogy of small-pox to support this fact; for experience too often shews that a varioloid may give rise to the development of a confluent small-pox, whether the individual be vaccinated or not.

In the language of the Lancet, "there is some foundation therefore for the opinion which begins to prevail among the public, that the preservative effect of vaccination is only temporary, at least in a certain number of individuals, but this fortunately does not diminish its value as a prophylactic, for we have it in our power to repeat the operation, whenever circumstances may seem to require it." The Canton of Bischwiller comprises about 25,000 inhabitants, and of these the greater part has been from time to time vaccinated, it is said, by physicians appointed under the government; the number vaccinated may amount to one thirtieth of the whole population. In 1832–3 small-pox broke out in this district and attacked 439 individuals, of whom 93 were not vaccinated and 346 were. Now, on examining these 439 patients with regard to their age, we find that 103 were less than ten years of age, 146 from 10 to 20, 156 from 20 to 30, and 34 from 30 to 40.

The result to be drawn from this comparative statement of ages is interesting and instructive. The class embracing children below 10 years of age, is the most numerous in a population, and contains the greater number of non-vaccinated individuals. Yet the amount of patients in this class is one-third less than in the two following. Whence this difference? The answer must be found in the modifying effects of time or the preservative power of vaccination. During the eight or ten years which succeed the first vaccination the preservative effect of the matter is most complete, and gradually looses its influence with succeeding years.

After the age of 30 or 35, the number of patients with varioloid is comparatively insignificant, because after this age the disposition to contract small pox is very feeble, and hence re-vaccination is not so necessary for those advanced considerably in life, as for the young and middle aged.

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The illustrious Hufeland says, that Varioloid attacks almost exclusively adult subjects, or those who had been vaccinated some ten or twenty years before; and this fact arises, he says, from the vaccine loosing its effects upon the human system after that time—he therefore advises re-vaccination after ten or twenty years.

In corroboration of these views it may be mentioned by one of your committee, that the persons affected with Varioloid in Utica, in the years 1832–3–4 and 5 were those who had had the vaccine disease some 15 to 35 years before; and that there was scarcely a single case in which the disease appeared within ten years from the time of vaccination. Several cases among adults from the age of *twenty-five* to *forty-five* were seen by one of your committee and were found to be well marked cases of Varioloid, but not a single one where vaccination had been performed within ten years; and in the numerous cases of vaccinia in adults from second vaccination, the virus taken from those subjects produced upon unprotected persons, well characterized cases of the true vaccine disease.

Dr. Stosch of Berlin informs us, that forty pupils in an establishment for instruction at Berlin, who had been vaccinated in infancy took the Varioloid in its well defined form, and in several instances in its most violent character; the cicatrices from vaccination were all well marked, and all those affected were between the age of fifteen and twenty, and among these the oldest had the disease the most violently.

Dr. Gregory too assures us that he rarely knew a case of Varioloid to occur in a person under the age of ten years, in other words within ten years from the period of vaccination.

The chairman of your committee having charge of several patients with small-pox in Utica, eleven years ago, used the precaution, being called to attend them, to vaccinate himself.

He had been inoculated with the vaccine at the age of fifteen, and had as he supposed well marked scars on each arm.

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Nevertheless he took the disease and experienced all the constitutional disturbance which usually attends the vaccine, and had three well formed pustules, from which he took matter and vaccinated two unprotected children, who also took the disease effectually. Since that time he has re-vaccinated at least one hundred protected adult persons; and as in his own case, he tested the quality or purity of the matter by vaccinating unprotected children.

A medical gentleman called upon him a year ago to obtain some vaccine matter; and on being requested to go and select some for himself from a child ten months old, which had then been vaccinated in each arm with two kinds of matter nine days before, the gentleman gave the preference to the set of pustules in the arm, vaccinated with virus taken from the arm of Mrs. G——, aged 35 years, who had had the vaccine in childhood; her arm exhibited well marked scars.

It should moreover be stated that the operator, in vaccinating the child, used two new lancets to avoid any mistake in regard to the two kinds of matter,—one in vaccinating one arm with virus taken from Mrs. G——'s arm, and the other lancet in inoculating the other arm with matter taken from another child from a first vaccination.

A few cases of Varioloid as it appeared in Utica will now be mentioned.

Case 1st. W. T. aged about 44, had been vaccinated at 8 years old; he has well marked scars on his left arm; sickened in May 1834; fever and severe pain in the head for about a week, when the eruption of Varioloid appeared pretty generally over his body; symptoms progressed regularly—fever and pain of head so severe as to require two bleedings.

Case 2d. P. T. aged 17, in same family; had been vaccinated at 4 years old—sickened two weeks after the above case appeared; a well marked case of Varioloid.

Case 3d. M. S. aged 50, had been vaccinated at 15 years of age; sickened in May 1835, fever, redness of face and eyes resembling an erysipelatous affection; five days from

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the attack, Varioloid eruptions appeared, and it proved to be a severe case of Varioloid.

Case 4th. A C. aged 38, had small-pox in Wales in infancy; this was a severe case of variola.

Case 5th. C. B. female aged 34, had been vaccinated at six years of age; after an illness of 7 days she was found to have Varioloid.

Case 6th. T. W. female aged 15, had been vaccinated in childhood; a well defined case of Varioloid.

Case 7th. W. C. aged 13, had been vaccinated in infancy; a well characterized case of Varioloid.

Case 8th. W. C. aged 20, was vaccinated in childhood; had a severe attack of the Varioloid.

In all these cases there were observed to be well formed *scars from* vaccination. Several similar cases might be narrated, were it necessary and did time permit.

Much having been said in respect to the vaccine becoming degenerated or injured by eruptive diseases, and some other causes, we think it right to quote M. Bousquet's opinions on *this subject.* According to him, true vaccinia possesses all its properties from the instant of its formation, and preserves them until the 8th or 10th day; he doubts whether the vaccine virus can be degenerated, or injured, by physical irritation or even by cauterization of the part in which it was inserted. *In his opinion* it possesses but one quality which never changes in different subjects. He says, "it is not true that eruptive diseases affect its quality or purity in any manner whatever. Small-pox, and even the virus of syphilis itself have no effect in impairing the efficacy and purity of the vaccine matter." He assures us that the various experiments which have been made prove conclusively, that the vaccine *virus* has never been known to carry the poison, or be affected in any manner with the virus of any other disease whatever.

We may here remark that false vaccinia differs very widely from the true, in its characters and progress: it begins by the first or second day, and is developed with such rapidity, that it attains its height by the time the genuine begins to

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show itself, the pustule present no central depression, is without the silvery lustre and has no elevated rim; it rises quickly to a point, and this becomes crowned, with a yellow or dirty layer, which bursts, and gives out a single flake of matter. This when dried, resembles gum in appearance; all this is accomplished in eight or ten days at farthest. There is now very little doubt that the spurious vaccine, is owing to matter too far advanced, or to the resistance offered by the economy from previous vaccination or variolation.

It is now about forty years since the discovery of vaccination by the philanthropic Jenner.

Before the vaccine disease had come fully in use, its efficacy as a prophylactic against small pox, was tested in several thousand instances by inoculation with variolous matter; and as scarcely an individual was affected by that disease, the medical public were therefore led to repose the most perfect confidence in the protective virtues of the vaccine disease, and very naturally entertained the hope that at no very distant period, that most loathsome distemper would be banished from the earth. Such continued to be the pleasing anticipations of many of the medical profession until within the last few years.

The public and even the members of the profession have been much puzzled with the question; what is the Varioloid? By some it is regarded as a distinct disease from small-pox, while others consider it as merely a modification of that disease.

Without entering into a detailed account of this matter, there are indubitable facts, derived from personal observation and practical experience, which warrant us in regarding Varioloid as a mere modification of small pox, producing in persons unprotected, genuine variola:—indeed in a few instances it has been known to produce the confluent form of the disease, and even death.

The importance of vaccination is urged by Dr. John Bell, in his dissertation on the question, "to what extent has the vaccine disease been found to be a preventative of small-pox."

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He says, "that reason and probability are highly in favor of the truth of Dr. Jenner's opinion, that the security which vaccination offers is in direct proportion to the degree of perfection of the vaccine process; and, that in consequence, it is advisable to revaccinate as long as any effect is produced." This dissertation it will be remembered obtained the Boylston prize for the year 1825.

Had Dr. Jenner's advice been followed, your committee are of the opinion, that small-pox and Varioloid would have been much less frequent in Europe and our own country.

Nevertheless the blessings of vaccination have been incalculable. From all that can be learnt, in regard to the mean duration of human life in Europe and our own country, it seems that five years have been added within the last quarter of the present century. In 1806, the average duration of human life was 28 years; it is now 33, there is therefore a gain of five years.

Now we hesitate not to say, that vaccination has contributed more towards this happy result than any other thing or measure which has occurred in our day. Up to the time of the discovery of that happy prophylactic, not less than one-tenth of the whole human race is supposed to have fallen victims to the devastating effects of natural small-pox. Thirty-six thousand persons died in England of that disease in one year, only three years before the discovery of vaccination. By the introduction of vaccination the most fatal risk to childhood has been banished; thus prolonging the term of existence, and to persons endowed by nature with a good constitution it affords the means of long life, by removing one great cause of its termination.

In conclusion, the experiments and observations, made by some of the members of your committee, are in conformity with the statements of M. Lurott, and M. Bousquet, and hence they feel themselves justified in coming to the following conclusions:

Firstly—That what has been termed Varioloid is in fact small-pox; capable of conveying that disease to persons

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who have never been protected; and that the degree of modification depends upon the diversified differences in constitution, and the greater or less influence effected by the previous vaccination.

Secondly—That some individuals are more effected by the vaccine virus than others; that there is strong reason to believe that its protective power is frequently injured or destroyed by time.

Thirdly—That vaccination is a complete protection against small pox, when the system is fully under the influence of the vaccine disease; but that the best evidence of this influence is to be found in resorting to revaccination until it no longer produces any effect upon the system.

With these views of the subject, your committee would respectfully advise revaccination not only in all cases of doubt, but in all instances where persons have been originally vaccinated in infancy or youth, believing that if this practice should be generally adopted, and proper precautions used in procuring pure vaccine matter, that most loathsome disease would be in a great measure, if not entirely, banished from the world.

All of which is respectfully submitted.

JOHN McCALL, *Chairman.*
JONATHAN EIGHTS,
WILLIAM BAY,
T. ROMEYN BECK.

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TRANSACTIONS

OF THE

NEW-YORK STATE MEDICAL SOCIETY.

ART. IV. ANNUAL ADDRESS, *delivered before the Medical Society of the State of New-York, Feb.* 8, 1837, *by* JAMES M'NAUGHTON, M. D., *President of the Society.*

GENTLEMEN,—

The revolution of another year has again brought us together, and the duty devolves upon me, however incompetent, of addressing you on some subject, connected with the object of our association.

This Society was instituted for the purpose of better regulating the Practice of Physic and Surgery, and of advancing Medical Science and Education, throughout the State. How far it has accomplished the objects contemplated in its incorporation, can best be determined, by ascertaining what was the condition of the medical profession, before it was instituted, and comparing that with its present state. Many think that more might have been accomplished, since its organization; but few have taken the trouble of investigating the nature of the obstacles to be surmounted, or the means possessed by the societies, to bring about a sudden revolution in the character and education of a profession like ours.

At the period when the first settlers came into this State, Medical Science was at a very low ebb in Europe. Medicine had not yet emerged from the superstition and empiricism of the middle ages. The clergy in many instances, united the care of the body with the cure of souls. Surgery was a rude art in the hands of barbers, and midwifery in the ex-

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clusive possession of ignorant females. The celebrated Medical Schools of Leyden, of Paris, of Edinburgh, and of London, were either not in existence, or such as existed, had not acquired much fame.

When Medical Science had made so little progress in the most civilized and enlightened nations of the old world, it could scarcely be expected, that it would flourish among the hardy adventurers, who resorted to the wilds of the new world. But after Harvey discovered the circulation of the blood, and Asellius, and Pecquet, the lymphatic system of vessels, a new era began. Medicine soon underwent a change. It began to be cultivated agreeably to the principles of induction laid down by Bacon, and to merit the name of science.

The Medical School of Leyden became the most celebrated in Europe; and, as most of the original settlers of this State, came from Holland, it is fair to presume, that some of its pupils found their way to America. But the records of Medicine, so far as known to me, are silent respecting them. The probability is, that such as came, were of that humble, but useful class, whose names are lost with the generation to which they belonged. After New-York had fallen into the possession of Great Britain, most of the educated Physicians of the Province, received their medical instruction at the University of Edinburgh, or at the private schools of London. No school of Medicine was instituted, in the province itself, until a very late period. It is a remarkable fact, that, although Colleges for instruction in Theology, Literature and the Arts, were established in New-England, and in Virginia, very soon after the first settlement, no Medical School was organized, until more than 150 years afterwards.

Little had been done for the diffusion of Medical Science, in any part of the colonies, before the revolution; and it was long after the connection between the mother country and the provinces was dissolved, before a Physician's education was thought complete, without a visit to the European schools. Those whose means would not admit of their crossing the At-

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lantic, had to be contented with the limited opportunities they could obtain of seeing practice with their preceptors, and what they could glean from the few books to which they had access.

No general law regulating the practice of Physic and Surgery was enacted during our colonial state—the only law relating to our profession, passed before the revolution, was in 1760, and was limited in its operation to the city of New-York. The preamble to the act sets forth the reasons which led to its passage. It is in these words:

"Whereas many ignorant and unskilful persons in Physic and Surgery, in order to gain a subsistence, do take upon themselves to administer physic, and to practice surgery, in the city of New-York, to the endangering of the lives and limbs of their patients, and many poor and ignorant people inhabiting the said city, who have been persuaded to become their patients, have been great sufferers thereby;—for preventing such abuses in future, be it enacted," &c.

This act provided, that every student should undergo an examination, and receive a diploma or licence. It was further provided, that a fine of five pounds should be recovered from any one who practised without complying with the provisions of the act. This act seems to have been continued in force in the city of New York, until the separation from the mother country. The lives of the people living beyond the bounds of the city do not appear to have received any protection against empirics. Whether this arose from the fact of their being thought of less value, or whether they were deemed less in need of protection, than those of 'the poor and ignorant people' of New-York, I know not.

On the 27th of March, 1792, another act was passed, limited to the city and county of New-York. The reasons set forth in the preamble for the passage of this, are very similar to those relative to the law of 1760. "Whereas, many ignorant and unskilful persons, presume to administer physic, and practice surgery within the city and county of New-York, to the detriment and hazard of the lives and limbs of

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the citizens, for the prevention of such abuses in future," &c. This act required that the student should study Medicine with some authorized practitioner for two years, if a graduate of some college, and three years, if not a graduate—that he should be examined by three practitioners, (other than those with whom he studied,) in presence of the Governor and certain other public officers—and if approved, that he should receive a licence to practice. In this act it was provided, that every person practising without a licence, should be fined seven pounds, and be incapable of maintaining a suit in any court for services rendered. Doctors in medicine were allowed to practice without a licence.

The first general law regulating the Practice of Physic and Surgery, was passed in 1797. By the act of 23d March of that year, every student was required to study four years, if not a graduate, and three, if a graduate. It was also enacted, that any person practising without a licence, should pay a fine of twenty-five dollars. It was further provided, that in case of some sudden emergency, any person might administer medicine, or even perform surgical operations; but no demand for compensation, for the services rendered, could be lawfully made.* This act continued, without material alteration, until April 4th, 1806, when the law incorporating the State and County Medical Societies was passed.†

By that law, every county in the State was authorized to form a County Medical Society, which, when organized as prescribed in said act, were declared to be 'bodies corporate and politic, in fact and in name,' each bearing the name of the county in which it was instituted. The several County Societies were empowered to examine students, and if found qualified, to grant a diploma, or licence to practice.

The State Medical Society was instituted by the same act.

* Graduates and Licentiates of Colleges of Medicine were permitted to practice without further examination, upon filing a copy of their diploma in the Secretary of State's office, or in the County Clerk's office.

† I am indebted for the above references to a Report made to the Assembly, in 1835, by the Hon. Edward Livingston.

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It consists of a limited number of members, called Permanent, and of a Delegate or representative from each of the County Societies, chosen for a limited time. By its charter, it is authorized to examine students, who present themselves for examination, either by original application, or by appeal from the decision of the Censors of the County Societies. It is also empowered to regulate the County Societies, provided its ordinances do not conflict with the laws of this State, or of the United States.

By the act of April, 1806, it was declared, that no person should practise physic or surgery in this State, without having first received a licence as directed; and that in the event of his practising, without a licence, he should not be able to recover, in any court, for services rendered.

Although prior to the passage of the above act, there existed some Medical Societies in New-York, and other places, their influence was limited as well as their privileges. It was not until the organization of the State and County Societies took place, that the profession acquired a regular form. A gentleman who took an active part in promoting the passage of the act, speaking of the state of the profession at the time, says:

"Those who witnessed the original and progressive settlement of the northern and western sections of this State since 1790, will recognize the mania that infatuated the emigrants from the east, and the ambitious projects formed by those who assumed the title of Doctors. Many who had never read a volume in medicine were suddenly introduced to an extensive practice, and to a reputation of such imposing authority as to control the opinions of their superiors in science, and to prescribe rules of practice for their government. Consultations were generally distinguished for gross controversies at the bed side of the patient, whose health and life were often immolated to the ignorance, prejudices, or discordant theories of the contending physicians."*

* Dr. Stearns, New-York Medical and Physical Journal, 1826.

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If this be any thing like a true picture of the general state of the profession, at that time, some Legislative action was loudly called for; and the profession is under lasting obligations, to those, who were most instrumental in originating and carrying through, the measures of reform. There has been some diversity of opinion, relative to the originators of the measures, which led to the enactment of the law of 1806. It has been attributed to, and claimed by, the Medical Society of the city and county of New-York; but, apparently, without justice. We are assured, on the authority of Dr. Stearns, a former President of this Society, that no "Physician then resident in the city of New-York, had any knowledge of the preliminary measures, which led to the formation of this law, or the most remote agency in procuring its passage through the Legislature."

According to this authority, than which better could not be quoted on the subject, the first movement took place in the county of Saratoga. A circular was issued by a meeting of practitioners of that county, convened at Ballston in November, 1805, addressed to the physicians of the adjoining counties of Montgomery and Washington, calling on them to meet at Ballston on the 16th of January, 1806, for the purpose of adopting measures to obtain an act of incorporation, for a Medical Society for "the suppression of empiricism and the encouragement of regular practitioners." The circular is signed by W. Patrick, John Stearns, and Grant Powell. The convention met on the day appointed. A memorial was agreed upon to be presented to the Legislature; and a committee, consisting of Dr. Asa Fitch, of Washington county, Dr. Stearns, of Saratoga, and Dr. Alexander Sheldon, of Montgomery, were appointed to aid in promoting the success of the application. It was not at first contemplated to make the act a general one; but the committee took the responsibility of making it so.

It fortunately happened, that Dr. Sheldon, one of the committee, was that year chosen speaker of the House of Assembly. Through his influence, aided by other medical

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members of the House, and in a most material degree, by the powerful eloquence of the late Judge, W. W. Van Ness, then a member, the bill, after a formidable opposition, was finally passed. Such was the origin of the act, organizing the State and County Medical Societies.

We are informed that in three months after the passage of the law, no fewer than twenty County Medical Societies were formed, pursuant to its provisions, and that in two years, there was scarcely a county in the State, of any considerable population, without its Medical Society.*

From this time the medical profession began to acquire character and respectability. The irregular proceedings, by which certain members of the faculty had hitherto succeeded, in acquiring notoriety and credit among the people, received a check. To become fit associates for men of character and standing in the community, required the cultivation of urbanity and good breeding on the part of those who wished to become members of the Societies, so that, by degrees, the great body of the profession became subject to one code of medical ethics, the obligations of which were generally acknowledged. There have always, however, been individuals, and not a few such are still to be found, who form exceptions to the general character of the profession; but, it is acknowledged on all hands, that, both in town and country, there is much more harmony, much more courtesy, and much more liberality of feeling, subsisting among medical men, than formerly. And what is more important to the public—there has been a proportionate advancement in education, general and medical, among them. Their frequent meetings in the Societies, have made them better and more extensively acquainted with each other, while it has produced more ardor and emulation for professional distinction.

The first meeting of the State Medical Society took place on the third day of February, 1807. Dr. W. M'Clelland, of

* New-York Medical and Physical Journal, 1828.

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this city, was chosen President, and Dr. Sheldon, of Montgomery, Vice-President. The Society adopted sundry resolutions for the promotion of Medical Science. Each member of the Society was directed to furnish a Geological and Topographical Survey of the County of his residence, and to read before the Society an account of any remarkable case of disease that might have occurred in his practice.

At the session of the Society in 1808, Dr. Nicholas Romayne, of New-York, was elected President. During this session two subjects for prize dissertations were proposed.

A gold medal of the value of $50 was offered for the best dissertation on the topography, geology and mineralogy of any county in this state, together with an account of the prevalent diseases in such county. A medal of the value of $25 was offered for the next best discourse on the same subject. Another medal of the value of $25 was offered for the best essay on typhus mitior.

In pursuance of the bye-laws, adopted at the session of 1807, medico-topographical reports were made by the delegates from the counties of Montgomery, Orange, Dutchess, Saratoga, Jefferson, Westchester, and Clinton. These facts show, with what activity and zeal, the Society proceeded, at its very institution, to improve medical science, by all the means in its power. From that time to this, it has never intermitted its exertions; and whatever progress has since been made in medical education, has been, directly or indirectly, the result of its efforts.

The act of 1806, remained in full force, without any important alteration, until the general revision of the laws in 1813. In all the acts relative to the practice of medicine up to this period, some penalty was inflicted upon such as should be found, practising as physicians and surgeons, without a licence; and in most of the acts, in order the more effectually to protect the ignorant and unwary against the arts of empirics, impostors, and pretenders to medical skill, it was provided that none but the regularly licensed should be able to

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claim remuneration for services rendered, or maintain a suit for such purpose in any court in the state.

Pretenders to medical skill have abounded in all ages and countries, who, by various arts, acting on the prejudices, ignorance or credulity, of the multitude, have for a time acquired credit, until their incapacity became exposed, by the suffering, or even death, of their patients. Nothing short of severe penal enactments has been sufficient to repress their unprincipled tampering with human life; and even these, (so strong is the propensity to believe in the marvellous and mysterious,) are insufficient to protect society against the devices of quack practitioners of the healing art.

It remained, however, for the state of New-York to legalize quackery, by positive enactments. The general provisions of the law of 1806 were retained in the revision of 1813, with this most extraordinary proviso:—"That nothing in this act contained shall be construed to extend to debar any person from using, or applying, for the benefit of any sick person, any roots, barks, or herbs, the growth and produce of the United States."*

Any advantages which the regular profession might be supposed to derive from the preceding sections, regulating the term of study, and the qualifications for licence, were effectually nullified by this singular provision. It was, as if a farmer should take unusual pains to secure his fields against trespassers, by constructing substantial walls or fences around them, and then should neglect to make gates, or intentionally leave them open. Under cover of this provision, any person might practise medicine; for among the roots, barks, and herbs of the United States, almost any article in the whole range of the *materia medica* might be exhibited with little risk of detection. For even if the proof could be made clear, a troublesome process of law was necessary to secure the conviction of the offender. The witnesses for the prose-

* In the law of 1797, the use of domestic remedies, "without fee or reward," was allowed, and in that of 1807, the roots, barks, &c. of the United States, were excepted from penalty.

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cution generally must be physicians, whose evidence is, on such occasions, received with suspicion and disfavor by juries; so that in fact, all the pains and penalties declared against irregular practitioners of medicine, have, for years, been almost a dead letter. A few prosecutions have taken place, and convictions been obtained; but, I believe, on almost all occasions, the sympathy of the public has been on the side of the offending party, while nothing but odium has fallen to the share of the medical profession, for aiding the prosecution. The provision of the law permitting the use of the roots, barks, and herbs of the United States, has been repealed, re-enacted and again repealed since 1813. It is now in full force since 1835, so that all can use these favorite articles for themselves or others, without fear of the law, whatever other causes of fear there may exist in connexion with their administration. I sincerely hope that this provision will never again be disturbed by the members of our profession. The public is more interested in the matter than we are. If the legislature see fit to permit it, and the sovereign people deem it a privilege to have their health tampered with, or their lives destroyed, by the roots and barks of the United States, be it so.—*Quem Deus vult perdere, prius dementat.*

Thus far no attendance on medical lectures is demanded, or even mentioned, in connexion with the requirements for licence. So silent are the several laws on the subject, that one would almost suppose there was no medical college or school accessible to students, where they could attend lectures. Such, however, was not the case; and the fact that attendance on lectures was not required before the licence could be obtained, must be ascribed to the opinion, still prevalent out of the profession—that physic can be studied in a private office to as much advantage as law. No opinion can be more erroneous. To practise the different branches of medicine, with skill, requires an accurate knowledge of several collateral sciences, which cannot be acquired in a private office, unless such office possess all the advantages

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usually offered at a medical college. Some one branch may be as well taught in a private office, as in a regular school; but the whole circle of the medical sciences cannot be adequately taught except at a medical school. With law, it is different. It is well known that no formal course of study is required, to qualify individuals for becoming law makers, it is therefore evident that no very extensive course of study is necessary for expounding laws, when made.

It is true, that every kind of knowledge is, at times, useful to the practitioner of law, and that those whose information is most extensive, possess much advantage, in many causes, over their less gifted brethren; but still, nothing beyond a respectable education, such as is expected of every intelligent citizen, is *absolutely* necessary for the study of law. A thorough knowledge of the structure and functions of the human body, of the properties and uses of the articles employed in medicine—of chemistry—of the history and character of the numerous diseases that man is heir to—must be acquired, by the practitioner of medicine, before he can properly discharge *his* responsible duties. The peculiar connexion between skill in the different branches of medicine, and an accurate acquaintance with certain collateral sciences, is but little understood, out of the profession—hence much erroneous legislation on the subject of medicine.

Although a medical college has been in existence in this state since 1792, and a considerable number of students have resorted to it, attendance on lectures has never been imperative; indeed, until 1818, no inducement was held out for such attendance. In a law passed that year, by the legislature, it was enacted, that the regular term of study should be four years, from which one year might be deducted, if the student had attended one full course of lectures at some incorporated medical institution in this state or elsewhere. This last provision, although not positively requiring attendance on lectures, has had a more important influence on the spread of

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medical education, inthis state, than any other provision in the statutes regulating the practice of physic and surgery. At first, most of the students attended lectures, rather with a view to shorten the term of study, than from any expectation of special benefit from the lectures—so little were the great body of practitioners aware of the advantages the public schools possessed over private offices, for the instruction of students.

The first attempt to establish a medical school in the colonies, now the United States, of North America, was made in Philadelphia in 1763, by Dr. Wm. Shippen, a pupil of the celebrated Dr. Hunter, of London.

His first course of lectures on Anatomy was delivered before ten pupils. In 1765 he was joined by Dr. Morgan, on his return from Europe. These two gentlemen laid before the trustees of the college of Philadelphia, a plan for the organization of a medical faculty, under its auspices. The trustees, over whom the illustrious Franklin presided, acceded to their proposal, and thus had the honor of laying the foundation of the first medical school in North America. It had, however, at first, many difficulties to encounter, and it was long before it attained the success for which it has since become distinguished.

It was not long before the example set by Philadelphia, was followed by New-York. In 1767, a medical faculty was organized, under the charter of King's (now Columbia) College. The year following, the school was opened for public instruction, under six able professors. In 1769, in consequence of an eloquent address delivered by the late Dr. Bard, at the first graduation, steps were taken to found an hospital, to render the course of medical instruction more complete. A subscription was commenced by Sir Henry Moore, the governor of the province, and the sum of £800 sterling collected for the purpose. The corporation of the city added £3000 to the other subscription. A building

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was commenced; but, unfortunately, when almost completed, it took fire and was destroyed. In consequence of this accident, the edifice was not re-built, and ready for the admission of patients, until 1791.* At the commencement, every thing augured favorably to the success of the New-York Medical College; but soon, the troubles which ended in the revolution, marred its prospects, in common with those of all other literary institutions. During the war, the lectures were discontinued, and were not again resumed, until some time after the return of peace.

In 1792, the trustees of Columbia College re-organized the medical faculty, consisting of six professors, and the school was re-opened. It began with the fairest prospects of success—being situated in the largest and most commercial city in the Union—possessing an able faculty, and having in its vicinity, an extensive hospital, to which its pupils could resort, for practical instruction. Nor were the expectations of its friends disappointed. It continued to rise in character and to increase in the number of its pupils until 1807, when, in an evil hour, another medical school was established in the same city.

On the 3d of March 1807, a memorial was presented to the Regents of the University, by the Medical Society of New-York, praying for the incorporation of a College of Physicians and Surgeons—which prayer was granted. By the charter, all the authorized practitioners of medicine in the county, at the time, more than one hundred in number, were declared trustees or members of the College. The Regents, wisely, as the event proved, reserved to themselves the right to appoint professors, and to modify, or entirely annul, the charter. At a subsequent session of the legislature, the sum of $20,000 was granted as an endowment.

The school then went into operation, and entered the field of competition with its elder sister, the school of Co-

* Hosack's Medical Essays, vol. 1. p. 73.

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lumbia College. "As soon as the new college was established," says a candid historian, "there commenced a spirit of rivalry and competition between the two schools, which led to the most disastrous consequences. After a long and bitter contest between the two parties, the friends of medical science interfered, and arrested the progress of difficulties, which had nearly proved fatal to both institutions." *

In the mean time, the College of Physicians and Surgeons with "its multitude of counsellors," enjoyed neither external prosperity nor internal harmony. Matters came to a crisis in 1811. On the 1st and 25th of March of that year, five several communications were made to the Regents, by different parties in the college, stating their respective views and grievances. These were submitted to a committee of the board of Regents, and in consequence of their suggestions, a new charter was granted in June 1812, differing in many respects from the former one. The number of trustees was reduced to twenty-five; but power to remove them was not reserved as in the original charter, hence many of the subsequent troubles of the institution.

A union between the Faculty of Medicine of Columbia College and the College of Physicians and Surgeons took place in 1814. From this time a new era for the College of Physicians and Surgeons began. It rapidly acquired fame, and a corresponding accession of students, from every part of the United States, from the West Indies, and from the British Provinces. Nothing but a vicious organization could prevent its rivalling the school at Philadelphia; but, unfortunately, it contained within itself, the elements of discord and decay. The Board of Trustees were mostly medical men, between whom and the professors, harmony could not be maintained. Their differences ran so high, that in the spring of 1825, a committee of investigation was appoint-

* Lecture at the opening of the Medical Department of the Columbian College, by Thomas Sewall, M. D., &c.

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ed, by the Regents, before whom the professors and trustees appeared. A very full and able report of the affairs of the College, was made to the Regents, by Lt. Gov. Tallmadge the chairman of the committee. From this report, it appears, that the College had received from the State, as endowment, in all, $66,457 27 cts., besides a botanical garden, for which the state paid $75,000, to the late Dr. Hosack.

The difficulties between the trustees and professors could not be adjusted; in consequence of which, and a reluctance to submit to certain regulations made by the Regents, the professors, in a body, resigned their commissions.

The condition of the college at this time was most deplorable. It appears, that since 1811, the money granted by the state as an endowment, had been entirely expended; and that the trustees were indebted to the ex-professors, to the amount of upwards of $21,000—about equal to the whole value of the public property belonging to the College.*

The sum of $7000 had from time to time been given for the increase and preservation of the anatomical museum; but the entire collection, which of right ought to belong to the College, was sold as private property, for the benefit of the heirs of the late professor of Anatomy. The botanical garden, having been found an annual source of expense, was given up to the Regents of the University, and subsequently granted, by the legislature, to Columbia College. It is now occupied on a long lease, as a common nursery, unconnected with any scientific object.

It is only necessary to mention these facts, to show that there was, some where, gross mismanagement of the public property. While the professors received all the fees, derived from pupils, the state paid all the contingent expenses of the College.

Had the professors been made to defray, out of their fees, the current expenses, in consideration of the gratuitous use

* *Vide* Communication from the Regents of the University, &c. to the Legislature, Jan. 26th, 1826.

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of the buildings, and the exclusive privilege of teaching, enjoyed by them—had the public funds been economically and judiciously managed—the medical school of New-York, at this moment, might have been in a situation, not only to rival, but to excel, every similar institution in the United States, in the richness of its endowment, and in the extent and value of its means of instruction. When, however, to relieve the embarrassment of the College, the professors were called upon to surrender ten per cent. on their receipts, they tendered their resignation.

The Regents forthwith appointed a new faculty, who commenced their labors the ensuing session, under many disadvantages. The ex-professors not relishing private life, immediately organized another medical school, in opposition to the state institution. Having been unsuccessful in their efforts to connect themselves with any of the literary institutions of this state, they attached themselves to Rutgers' College, in the state of New Jersey. The legislature of the state of New-York, resented this interference with its sovereign powers, by declaring all degrees conferred by any college out of this state, on students studying at an institution within the state, null and void, as licences to practice medicine.

Thwarted in this manner by an authority whose mandate could not be disregarded, they attempted to connect themselves with one of the Colleges of Arts of this state. Their application was at first unsuccessful; but they succeeded, at last, in establishing a connexion, with Geneva College, an institution recently chartered in the western part of the state. Geneva College consented, for a pecuniary consideration, to confer the degree of M. D. upon such as Rutgers' medical faculty should recommend. This was all the connexion between the parent school and its branch in New-York. With a distance of 300 miles intervening, the trustees of Geneva College, could not very well exercise much government over their medical faculty. But their connexion was of short du-

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ration, and even while it lasted, was illegal; for by the revised law of 1827, it was declared, that no diploma or degree conferred by any college in this state should be a license to practice medicine, and that no college should "have or institute a medical faculty to teach the science of medicine in any other place than where the charter locates the college." Notwithstanding this law, the connexion was continued until a process issued from the Supreme Court, enquiring by what authority Geneva College continued to retain a branch in the city of New-York. The connexion was speedily dissolved, and Rutgers' Faculty of Geneva College, ceased to be numbered among the Medical Schools of this state. But, unfortunately, its discontinuance, did not heal the divisions existing in the profession in New-York. It was divided into two parties—one friendly to the state school, the other opposed to it. This unhappy state of things still remains; and I am sorry to say, that it is not confined to the city of New-York. The same feeling has been exhibited in the halls of legislation.—We have more than once heard members from the city, in their places, speak disparagingly of the medical school and its present professors. We have heard similar language in the senate chamber, from one of the Regents of the University. Add to all this, that the municipal authorities of New-York, have never, like those of Philadelphia, favored the schools, either with funds, or with other facilities no less necessary to the success of a medical institution. How then, under all these circumstances, could it be expected that any school should flourish, whatever might be the talents of its teachers? The number of students attending the lectures at the College of Physicians and Surgeons, never exceeded 220, during its most palmy days; and now, in consequence of the difficulties already mentioned, and others which it is unnecessary to particularize, the number scarcely exceeds one hundred. I very much fear, that the college will never

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flourish, until the state again extend its liberality to it, and a radical change is effected in its organization.

The College of Physicians and Surgeons of the Western District, was the next medical school instituted by the state. It was incorporated in 1812. It is located at Fairfield, in Herkimer county—a small country village. The legislature granted $15,000, to be raised by lottery, as an endowment. The greater part of this fund was expended in the erection of buildings, and in paying small salaries to the earlier professors. As might have been expected, from the remoteness of the location, and the small number of students, who under the medical law then existing, attended lectures, the school was at first, not very successful. It spun out a feeble existence until 1818, when its funds became exhausted—the trustees became discouraged, and the professors were on the point of throwing up their commissions. As a last resort, application was made to the legislature for relief. An annuity of $1000, for five years, was granted for its support. The act relative to the practice of Physic and Surgery, was also amended, so as to shorten the term of study one year, to such as should have attended a full course of lectures. From these two causes, aided, in all probability, by others, the school began to flourish. Its pupils each year became more and more numerous, until the class rooms could not accommodate them. Further aid having been refused by the legislature, the professors, at their private expense, re-modelled the whole interior of the college—extended the class-rooms, and fitted up apartments for the museums of anatomy and natural history. They also erected a large stone edifice, four stories high, to accommodate, at a low rate, the students, with lodging rooms.

Every thing promised a prosperous course for the school, and the professors flattered themselves, that they were about to be rewarded for their exertions, and remunerated for their expenditures. In the session of 1834, there were 217 students in attendance—a larger class than ever attended at a

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country medical institution. But it was now discovered, apparently for the first time, that the western part of the state was sadly destitute of the means of medical education, —that a whole million of people, west of Utica, were without a medical school for their children.* The wish for such a school was therefore natural; and the only thing to be regretted, is, that it was not thought of sooner, before individuals had gone to the expense of providing accommodations, for students from the west.

In the autumn of 1834, Geneva College, formed a medical faculty in connexion with its other departments, but under a different government, leaving its management chiefly to the faculty itself, and a board of gentlemen, unknown to the charter, called curators.† It was necessary to obtain the sanction of the legislature to this measure, otherwise the degree conferred by Geneva College, would not be a licence to practise—no degree at that time conferred in the state being a licence, except that granted by the Regents of the University. Application was first made to the board of Regents in behalf of Geneva College, praying that honorable body, to confer the degree of M. D. upon such as the medical faculty should recommend.‡ The petition was referred to a committee, for their examination, to determine whether the Regents possessed authority to grant the prayer of the petitioners, and if they possessed the power, to consider whether it was expedient to exercise it.

But that no time might be lost, in a case of such urgency, as that of an entire million of people, suffering for want of an adequate supply of medical advisers, an application was, at the same time, made to the legislature, for a law, declaring the degree of M. D. conferred by Geneva College, a licence to practise medicine. Both applications were strenuously opposed, by parties who deemed themselves interested, both on private and public considerations. It was contended, that the number of students in the state, could not sup-

* *Vide* Appendix A. † Appendix B. ‡ Appendix C.

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port more than two schools—one in the city and one in the country—that all could be as well taught in these two, as in three or four—that it would promote neither the interests of the profession, nor of the public, to multiply schools beyond what could be adequately sustained—and that it would lower, instead of elevating, the standard of medical education. It was further contended, that, even if another medical school were wanted, it should be put under the same regulations as the other colleges.

But these arguments were scarcely listened to. The bill was reported by a committee of one branch of the legislature, and made the special order of the day, for the second or third day following—was discussed from noon until night, and then passed, almost by acclamation, most even of those who spoke against it, voting for it. The bill, after a very animated and protracted discussion, passed the other branch of the legislature also, and received the signature of the Governor. Whether this school is destined to do all the good, its friends expected from it, or all the evil apprehended by those opposed to it, time alone can determine.

It has completed its third session. The number of students in attendance last session, was between 50 and 60, and at the institution at Fairfield, 164—being an aggregate not exceeding the class in attendance at Fairfield alone in 1834. Even if the two schools were to divide equally the number of students between them, neither of them could be said to be in a flourishing state. There is not support enough for two respectable schools in the country; and it is more than probable, that at no distant period, one or both of the existing ones must be discontinued.

Such is a brief, and, of course, rather imperfect, sketch, of the course of medical legislation, and of the history of the medical institutions of this state, up to the last session of the legislature. By an amendment to the act regulating the practice of physic and surgery, passed last session, no person admitted to practise in any other state, or country, is authorized to practise in this state, until he shall have re-

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ceived a licence from the censors of the State Medical Society. This amendment was found necessary, on account of the difficulty of determining the genuineness of the credentials, presented by foreigners. In several instances, the papers were ascertained to be forged, and in some others, there were well founded suspicions, that the bearers of the diplomas, were not the persons to whom they originally belonged. Examination alone, in such cases, can protect the public against imposition. In other instances, persons going out of this state, or coming in from other states, were known to have received diplomas, without complying with the requirements of the laws of this state. The legislature were also, in all probability, influenced by the consideration, that in several of the contiguous states, and in the Canadas, the licentiates, and medical graduates, of our colleges, could not practise without an examination.

Hurried as has been the sketch given, it will be perceived, that there is yet, much room for improvement in medical education. Having for many years been a public teacher, I trust, it will not be deemed presumptuous or impertinent, in me, to point out a few of the defects, and to suggest some amendments.

In my opinion, the greatest defect, is in the preliminary education of students of medicine. Much the greater number of them, are destitute of classical attainments; and even their English education is often very imperfect. Not a few of the graduates in medicine are unable to translate a line of their diploma.

It is a reproach to the profession that this should have so long existed. A certain degree of knowledge of the Latin language, at least, is necessary, to enable a medical student to profit to the utmost advantage, by the books he reads, or the lectures he hears. Most of the terms in anatomy, materia medica, botany, and chemistry, are derived from that language; those, therefore, who have to commit to memory these numberless names, as arbitrary terms, have a most irksome labor to perform, which would be avoided, had they un-

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derstood the language. The British Colleges of Surgeons have, for a number of years, required from candidates for licence, a competent knowledge of the Latin language, and of the elements of mathematics and natural philosophy. Even the society of Apothecaries, demand higher attainments, than are at present required for the degree of Doctor of Medicine, in most of the colleges in the United States.

In this state, at present, an acquaintance with the above branches of a liberal education, is not indispensable; and in too many instances, those who receive degrees are entirely ignorant of them.

Not long since, it was stated by one of the Regents, on the floor of the Senate chamber, that a letter had been received, from a graduate at Fairfield, in which there was not a word correctly spelt, except the word 'and.' The charge was spitefully, as well as falsely, made. Upon enquiry, it was ascertained, that the letter referred to, had been received by another Regent, and that it was remarkable for violations of orthography;—but there was no evidence that the writer was a graduate of the institution at Fairfield. It was merely understood, that the person had attended lectures there. Now, as any one who chooses can attend lectures at any of our medical schools, the faculty ought not to be held responsible for the literary attainments of any, except such as they recommend for the honors of the doctorate. A person ignorant of the alphabet, may attend medical lectures, if he conduct himself, in other respects, with propriety.

The candidates for the degree of Doctor of Medicine, are only required to be able to write an English dissertation, on some medical subject, with grammatical accuracy, and freedom from gross violations of orthography, in addition to the requisite knowledge of the several branches of medicine. Beyond this, the professors are not permitted to demand evidence of higher, or more general, attainments. It may be supposed, that this defect, so far as the conferring of degrees is concerned, might be remedied by the Regents of the University. It certainly could;—but without any benefit to the

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profession, and to the certain injury of our own medical schools.

There exists on our eastern border, a cordon of medical schools, some of which are so accommodating as to give two courses of lectures in a year, to which the students of this state could resort, even in greater numbers than they do now, if the requirements for degrees were much higher with us, than in other states. By the printed regulations of some of the medical school sof the adjoining states, it would seem, that the requisitions for degrees are higher than in this state; for, a competent knowledge of Latin, and natural philosophy, is required. But, notwithstanding, it is found, in practice, that the want of such acquirements, is no insuperable objection to the success of a candidate for the degree.

It is well known to the generality of students in this state, that a medical degree can be as easily obtained in the New-England colleges, as in those of this state. In one of these schools, the facility of obtaining degrees is become notorious. We know of several instances in which degrees were conferred on persons rejected, not only once but twice, in this state—persons noted for natural dullness, as well as ignorance of their profession.

Last spring, an instance occurred, in which a degree was conferred on an individual, rejected by one of our colleges, within a few months of his rejection, and without any attendance on lectures at the college conferring the degree, although, by their printed regulations, the candidate is required to have attended one full course, at least, at the institution. It is manifest, that, while this state of things is tolerated, if the requirements for degrees, in this state were higher than elsewhere, our own schools would be deserted, and the professors left to discourse to "a beggarly account of empty" benches. The requisitions for licence must be raised, before we can demand higher qualifications from candidates for degrees.

It is for this Society to determine, whether or not, it be expedient, at present, to require more extensive general knowl-

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edge, before bestowing a licence. It would be unjust to insist, all at once, on higher attainments, from candidates; but it certainly appears proper, and necessary, that some steps should be taken to bring about such a measure of reform, as to affect all who may, from this time, enter upon the study of medicine. I believe this society possesses the power to determine the qualifications necessary for receiving their licence, without further action of the legislature.

There are defects in medical education itself no less striking. It is not indispensably necessary to attend lectures, either at a public or private institution. One may study in a private office, and at the end of four years, present himself before the Censors of the State, or County Medical Societies, for examination, and may obtain a licence, to practice physic, surgery, and midwifery, although he may never have heard a lecture on anatomy, or witnessed human dissection—never have seen any important surgical operation performed—or ever have attended a woman in child-bed. I am aware that this is stating an extreme case; but instances of the kind have occurred, and that not long since. It may be said, that, in such cases, the fault must rest with the Censors who admit such persons. That is undoubtedly true; but where the law admits of such occurrences, and when there are some fifty or sixty boards of Censors in the State, from some cause or other, individuals will escape the rejection they merit. It certainly would not be asking too much, if we ask any thing, to require attendance on one full course of lectures as a prerequisite to receiving licence.

Two full courses of lectures are required of candidates for the degree of Doctor of Medicine; but these courses are not sufficiently practical. Medicine in the extended sense of the term is not only a science, but an art. Lectures alone will never qualify a person to make a watch, construct a steam-engine, or build a ship. One must not only understand the principles, but he must put his hand to the work, and even then, it is only by slow degrees he at last succeeds in making a well finished piece of workmanship. It is just

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so in medicine. A disease must be seen, sometimes felt, before one is qualified even to determine, what malady it is he is to prescribe for. In surgery and obstetrics, the practitioner must not only know the structure and functions of the part on which he is to operate, but must be capable of using, with dexterity, the instruments he has to employ. The present mode of instruction, in almost all the colleges of the United States, is more or less defective. No attendance on the practice of an hospital is indispensable—neither is skill in practical anatomy or dissection. In the larger cities, it is true, most students, for a short time, attend the hospitals, and practise dissection; but even in these, unless it be absolutely necessary, few will avail themselves of the advantages afforded, to the full extent.

It appears to me nothing more than reasonable, to require of every one, before he aspires to the degree of M. D., that he should have attended the practice of some respectable hospital, for six months, and have gone through, at least one course of dissections, to familiarize himself with the structure of the body whose diseases he intends to relieve or to cure.

Of the two courses of lectures now required on surgery and practice of physic, one might be theoretical and the other clinical. In New-York, where there is an extensive hospital, this arrangement might take place at once. At the other two schools, there is no hospital—so far, therefore, they are defective, and their course of instruction imperfect.

In regard to dissections, all our schools labor under disadvantages. There is no legal mode of obtaining subjects. It is by law declared felony to be concerned in the exhumation or dissection of a human body. The only subjects legally obtained, are the bodies of convicts who die at the state prisons, not claimed for burial by relatives. If all who die at the state prisons were given up, the supply would be inadequate. The bodies of those only who die in winter can be of any use, and these seldom exceed two or three during the

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season. Few as these are, those from the prison at Auburn, are divided between the schools at Fairfield and Geneva. The result of this narrow policy is, that the schools, particularly the country ones, are scantily supplied—and that in all, the supply is precarious and expensive;—for it cannot be supposed, that those who procure subjects, at the hazard of liberty and life, will expose themselves, without compensation, corresponding with the risk they run.

Great Britain, after a course of illiberal measures on this subject, has at last legalized the pursuit of anatomy; and the example has been, very much to her credit, followed by the state of Massachusetts. New-York has the unenviable distinction of having on her statute books, a law, on this subject, such as has never been known in the legislation of any civilized community, since the darker ages. It would be difficult to say, whether we could hope for success in an attempt to get this law repealed. When, a few years ago, such an attempt was made, at the general revision of the laws, instead of relaxing the severity of the existing law, it was proposed by the revisors, to withhold even the bodies of those who died at the state prisons.

They contended, that so long as the bodies of criminals were given up, the practice of human dissection, would remain unpopular. When asked, how the public schools were to get subjects, it was answered, that they could get them from other states. Now, if it be wrong to procure subjects for dissection, at home, it cannot be right, in our humble opinion, to get them from abroad. The idea of rendering dissection popular, by not associating it with crime on the part of those dissected, is a most preposterous one. There is a feeling in the human breast, that revolts at the thought of seeing the remains of friends and relatives mutilated; that their dissection can never be tolerated, except under very peculiar circumstances, or to subserve the ends of public justice.

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Then, as the public safety demands it, and as no medical man can discharge his duty properly, who is not skilled in anatomy, is it not absurd to be establishing medical schools, while it is declared felony to procure the means by which alone they can flourish, or accomplish the ends for which they are instituted? Is it not moral cowardice, or something worse, on the part of representatives, to shrink from the performance of a solemn public duty, for fear of wounding the prejudices of some few of the most ignorant of their constituents? Is it creditable for intelligent, liberally educated men, when such questions are discussed, to appeal to the passions of the multitude, about the injustice of giving up the bodies of the poor—the unfortunate—friendless poor, to the scalpel of the anatomist? Such a course might be expected of a demagogue;—but better things might be looked for from men of enlightened minds. If anatomy must be studied—if the public safety require it, (and who denies it?) ought not the legislature to make suitable provision, for doing it legally? In some way or other it will be done. Is it not better then that the remains of the inmates of our jails—penetentiaries and alms-houses—persons that have been long supported at the public expense, and who have no relatives or friends, whose feelings can be wounded—should be given up for dissection, under proper restrictions, than that the graves should be robbed—the feelings of friends lacerated—and whole communities thrown into confusion and disturbance.

In France, where the government provides subjects, such a thing as the violation of a private burying ground is unknown. Such would be the effect of liberal measures here: and the credit of the state requires, that something should be done.

There are several other topics to which I would like to draw your attention did my time permit; but I have already trespassed on your patience. I cannot however draw these remarks to a close without adverting to the inadequate endowment of all our colleges. Our medical schools are now sup-

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ported, almost entirely, at the expense of their respective professors. Is this creditable to the great and prosperous state of New-York? What is the reason that such a distinction has been made between the medical colleges and the colleges of arts? Do not medical schools require libraries, chemical and philosophical apparatus, and museums of anatomy and natural history? Can it be expected that professors, from their scanty receipts, will furnish all these, and pay contingent expenses to boot? And if they do, can it be reasonably hoped, that we shall ever possess institutions, that can equal the liberally endowed establishments of other countries? Is not the community as much interested in having well endowed medical colleges as literary ones? If so, why has the state made such a distinction between them, in the bestowment of her bounties?

I do not mean to intimate, by these remarks, that the literary institutions have shared too liberally the bounty of the state. On the contrary, all of them are inadequately provided for.* There is scarcely a petty principality in Germany, that cannot boast of an University, possessing a library, containing more books than all our colleges, theological, medical and literary, put together. Some of them have also splendid collections in natural history and other departments of science. I need hardly mention here, that in all these our colleges are sadly deficient; and there is not a single botanical garden in the state.

Since the amendment of the constitution in 1822, not a dollar has been appropriated by the legislature to elevate our literary or medical colleges. In the mean time millions have been expended on other objects. Canals and rail-roads have been made, and others are in progress in all directions. Every thing, in short, has been done for meliorating the physical condition of the citizen; but what has been done for his

* Union College may be considered an exception; but that institution, although it has a liberal endowment, thus far possesses neither library, museum, nor collection of philosophical apparatus in any respect superior to those of the other colleges.

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moral and intellectual improvement, by our constituted authorities? Nothing—literally nothing.

Are we never to possess but common schools, and academies, or institutions whose limited means permit them to rank no higher? Must our children encounter the storms of the Atlantic to seek, under other governments, advantages denied them under our own? We hope, that a more liberal spirit will prevail, and that the legislature will set apart, some of the wealth of the state, for the purpose of placing our higher seminaries of learning, on such an eminence, as will enable their professors, to look around on kindred institutions in other countries, without feelings of humiliation, or consciousness of inferiority.

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APPENDIX.

In consequence of some remarks made in the Society by a gentleman connected with the medical faculty of Geneva College, I deem it due to myself and the Society, to publish entire certain papers relating to the formation and organization of that school, so that the members of the Society, and such others as take an interest in the subject, can examine for themselves, and decide how far the observations in the text are justified by the authorities quoted. The papers are on file in the archives of the Board of Regents.

JAMES M'NAUGHTON.

A.

The committee appointed to consider the subject of the establishment of a medical faculty in connexion with Geneva College, and to confer with any medical gentlemen who may be now attending, in reference to this matter, Report:—

The institutions in this state for instruction in medical science, are very generally admitted to be inadequate to the wants of the community. That at New-York is intended for the accommodation of the southern part of the state, while that at Fairfield can scarcely any longer be considered in the western part. Since its establishment, the immense tract of country extending to and along Lake Erie has been settled, and a large population west of and including Ontario county, are entirely destitute of any other means of medical instruction than such as are furnished by studies in private offices of physicians. When it is considered that the duties of the profession occupy the whole time of the eminent and capable practitioners, who are the most capable to give instructions, it must strike every one that little or no attention can be given to the studies of their pupils, who must necessarily be left to grope alone, and assisted only by very general advice in the pursuit of a branch of knowledge eminently requiring explanation

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and illustration. It is obvious that these can be furnished only by those who devote themselves exclusively to the business of teaching, hence private schools have been established in the western part of Massachusetts and Vermont, to which the youth of our own state repair, and a few such schools have also been established in different parts of this state. While these show the strong necessity of the case, it must be admitted that they do not supply what is wanted. Their organization is necessarily imperfect, from the inability to combine a sufficient number of teachers, to afford that variety of instruction which the different departments of medical science require. A deep feeling of the great wants of the community in this respect has for a number of years led many medical practitioners in the western part of this state to consider whether some plan might not be adopted, by which a medical school might be established under the auspices of some one of the literary colleges. The wishes of some of the gentlemen to connect such a school with Geneva College, were communicated to the chairman of this committee more than a year since, and at an informal meeting of a number of the trustees of the college, at Geneva, in the month of January last; at which, among whom Dr. Carter, the only medical gentleman in the board, was present, the subject was introduced, the names of the gentlemen who were supposed desirous of the connexion, were mentioned, and the chairman of this committee was then authorized to open negotiations on the subject. Accordingly, in the same month, Dr. Thomas Spencer, of Madison county, the late President of the State Medical Society, and Dr. Morgan of Auburn, who had for some time lectured to a respectable class at that place, were consulted and informed of the readiness of the trustees who had been present at the meeting above mentioned to co-operate with them in the establishment of a medical school under the auspices of Geneva College. They were desired to communicate with their professional brethren in the western part of the state, ascertain their sentiments and invite their co-operation; and they were requested to furnish a plan, or set of statutes, for the establishment of a medical faculty. Desirous of having some written evidence of their authority, which they might exhibit to those with whom they were to connect themselves, a letter was written to them and signed by a number of trustees, which had been read to most of the members of the board, and in which assurances were given them of the disposition of the persons subscribing the letter to second any judicious and reasonble plan they might propose.

These gentlemen inform your committee that they have accordingly consulted a number of medical practitioners, in about all

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the western counties, and that they feel a general approbation of the project manifested by almost all whom they consulted. They have prepared a set of statutes which they submitted to your committee, and which with a few modifications which have been assented to by those gentlemen, are recommended to be adopted by the board.

The persons named as professors have been consulted on the subject, and they are willing to act with each other. *Viewing it as a private enterprize, substantially to be conducted at the expense and risk of the professors, it has seemed proper that they should nominate their own associates, with whom they were willing to act, and on whose talents and dispositions they would mutually rely.* The persons nominated are not only free from all reasonable objections but are each of them respectable in their profession, and are well qualified as instructors.

The immediate and direct advantage to the college of the establishment of such a faculty, is found in its furnishing instruction in chemistry to the students. The want of funds has compelled the suspension of the duties of this professorship for some time, and the deficiency has been deeply felt and lamented.

This will now be supplied, and will save the college the amount of the professor's salary annually. The students of the college will also be permitted to attend the botanical lectures gratuitously. The indirect and consequential benefits to the college, of such a faculty, are still more important. The individual interests of those directly engaged in its management, will become identified with the prosperity of the college, and the feeling of the medical profession throughout the country will be enlisted in its favor; it will become better and more favorably known—its friends and patrons will be scattered over the entire west, and the unfounded prejudices which have been enlisted against it must be removed. At least, your committee perceive no other mode in which these objects can be effectually accomplished.

The condition of the college admonishes them that some effort is absolutely necessary to keep it in existence. While that under consideration may not accomplish all that is desired, yet it is believed that it will do much to attract attention to the college and render it popular.

It has been objected that such a medical school in the country, without the advantages of a hospital, will be inadequate to a thorough education. This may be very true. But when we reflect that such advantages cannot be obtained out of our populous cities, if the objection is allowed its full weight, we must come to the conclusion that there should be no medical schools in the country,

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and that those who intend to pursue the profession, must either go to the cities for an education, or abandon their design, as we know that there will be medical students who will not or cannot repair to the cities for instruction. The only question left, seems to be whether it will not be a positive advantage to them, and of great moment to the community, to afford them means of education far superior to any they can have in private offices. Shall we refuse to provide an inferior mode of instruction because it is not the very best? We think not. The principle, if fully applied, would destroy all the medical institutions in our country, for we presume none of them can compare with those of London, Paris, or Edinburgh.

The committee regret the opposition made to the proposed measure by some medical gentlemen in Geneva. The facts and circumstances could not have been well known or understood by those who suggest that the trustees should give notice of their intention to appoint professors, and then wait for applications. *The professorships are not endowed by the college, and they are not maintained by it. Their dependence is wholly upon the individual enterprize of those who embark in the undertaking; they constitute a species of partnership among themselves; they have all the expense and incur all the risk.* To force upon them partners and associates, not elected and approved by themselves, would be utterly inconsistent with the principle on which the whole is founded, and by introducing men whose views and feelings did not accord, a sure source of division, contention and speedy destruction would be immediately created.

It seems to your committee most evident, that there was no mode of organizing such faculty but the one already adopted, that of leaving to the gentlemen concerned the selection of their own associates, subject to our first objection, as trustees of the college.

With these views, the committee cordially recommend the adoption of the statutes herewith reported for the establishment of a medical faculty of Geneva College.

B.

Statutes of the Trustees of Geneva College, for the formation of a Medical Faculty thereof, to be denominated the Medical Institution of Geneva College.

1. There shall be a Medical Faculty of this College to consist of not less than four nor more than eight Professors.

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2. There shall be for the present the following Professorships, viz:

1st. Anatomy and Physiology.
2d. Institutes and Practice of Medicine.
3d. Principles and Practice of Surgery.
4th. Chemistry.
5th. Obstetrics and Materia Medica.
6th. Medical Jurisprudence and Botany.

3. There shall be a Dean and Registrar of the Faculty, which shall be elected by the Professors.

4. The following gentlemen are hereby appointed Professors, and constitute the Medical Faculty of Geneva College.

Dr. Edward Cutbush, on Chemistry.
" T. Spencer, on the Institutes and Practice of Medicine.
" J. G. Morgan, on the Principles and Practice of Surgery.
" C. B. Coventry, on Obstetrics and Materia Medica.
" W. Parker, on Anatomy and Physiology.
" A. Coleman, on Medical Jurisprudence and Botany.

5. The said Professors shall hold their appointments or offices, at the pleasure of the Board of Trustees of Geneva College; *but no person shall be a member of the Faculty without a recommendation of a majority of the Medical Professors, nor shall any person be removed from such professorship without the consent of a majority of the said Medical Professors.*

6. *The said Faculty shall make such rules and regulations, respecting the admission of pupils, the terms and times of their attendance upon lectures—their examination and conduct, and respecting all other matters connected with the interest and prosperity of the institution as they shall judge proper.*

7. The Dean shall preside at the meetings of the Board of Professors, and at the joint meetings of the Faculty and Curators.

8. The Registrar shall attend at the meetings of the Board of Professors, and the joint meetings of the Faculty and Curators, preserve minutes of the proceedings thereof in books provided for that purpose, which books shall be always open to the inspection of the Board of Trustees.

9. Whenever any pupil shall have pursued a regular course of Medical Studies, and attended the number of courses of Lectures required by law, and shall, upon examination by the Faculty, in presence of the Curators, be found by them to be duly qualified to Practice Physic and Surgery—of good moral character and habits, and entitled to the degree of M. D.—the Professors and Curators shall certify the same to this Board.

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10. The Medical Commencement shall be held annually on the Tuesday following the close of the Medical Term, at which time the Trustees shall meet for the purpose of conferring the Medical Degrees *upon such as are recommended by the Faculty of Medicine and Board of Curators.*

11. Upon such degree being conferred, the Secretary of the Board shall affix the seal of the College to a proper Diploma, which shall be subscribed by the President of the College, and by the Secretary of the Board, and also by the Professors and Officers of the Medical Society.

12. The *graduation fee* shall be twenty dollars, which fee shall, after defraying the expenses of the Diploma, be appropriated for the purchase of a Medical Library, specimens of Natural History, Anatomical Museum, or contingent expenses, as the Faculty shall consider, from time to time, the most conducive to the interest and prosperity of the institution.

13. There shall be appointed from members of the profession, *or from citizens*, such numbers of Curators as shall from time to time be deemed expedient, in like manner as the Medical Professors, and they shall hold their offices by the same tenure, except in case any such Curator shall absent himself for two successive Medical Commencements, his office may be considered vacant, and another person appointed to fill his place.

14. The Trustees will receive with respectful attention, recommendations which the Medical Faculty and Board of Curators may make to them for conferring the honorable Degree of Doctor of Medicine upon a limited number of Physicians annually, who possess moral and professional standing.

15. In case of any vacancies existing in the Board of Professors, in the interval of the annual meeting of the Board of Trustees, the members of the Medical Faculty may temporarily supply such vacancies.

16. As soon as the Trustees shall have provided new buildings, the present College buildings shall be fitted up for the use of the Medical Faculty, and until then, the Trustees will allow the Medical Faculty to occupy one or more of the houses belonging to the College, fronting on the public square, and as an equivalent for the use of either of the said buildings or houses, the senior academical students shall be privileged to attend the Lectures on Chemistry, Anatomy and Botany, gratuitously, and the Trustees shall receive such additional compensation for the use of the said buildings as the success of the Faculty will warrant, and as shall be considered reasonable.

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17. The following persons are hereby appointed Curators:

Dr. Richard Wells,	*Ontario*	*County.*
" Gardener Wells,	*Seneca*	"
" J. B. Ellwood,	*Monroe*	"
" Joseph Trowbridge,	*Erie*	"
" Bryant Burwell,	"	"
" Henry Mitchell,	*Chenango*	"
" Wm. Taylor,	*Onondaga*	"
" Samuel Porter,	"	"
" Geo. W. Philips,	*Tompkins*	"
" Samuel P. Bishop,	"	"
" John M'Call,	*Oneida*	"
" Sumner Ely,	*Otsego*	"
" Consider King,	*Cayuga,*	"
" Joseph V. Pitney,	"	"
" Eli Hill,	"	"
" John Miller,	*Cortland*	"
" John Cotes,		
" John D. Higgins,		
" Jno. Shuler,		
" Orson Nickinson,		
" Nathan Boyington,		
" Augustus Crarey.		

C.

To the Regents of the University of the State of New-York.

The petition of the subscribers, in behalf of the Medical Faculty of Geneva College, respectfully shows:—

That on the 15th of September, 1834, the Trustees of Geneva College organized a Medical Faculty and adopted statutes for its government.

The views of the Trustees of the College, in organizing the Medical Faculty, as your petitioners believe, are expressed in the report of a committee of the board, a copy of which is herewith presented.

Your petitioners further show, that the necessary arrangements have been made for commencing a course of Medical Lectures at Geneva, on the second Tuesday of the present month, to continue sixteen weeks.

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Your petioners further show, that doubts are entertained, and have been expressed upon the point, whether under the law of this state the degree of M. D. conferred by the Trustees of the College would authorize the person receiving it, to practice Physic and surgery in this state—that the existence of such doubt will operate to the prejudice, if not to the defeat of the enterprise, and with a view to the removal of all doubt or difficulty, and to place the students attending the Medical Lectures on the same footing as those who shall have attended the Lectures at the College of Physicians and Surgeons of the city of New-York, and of the Western District of this state at Fairfield.

Your petitioners pray your Honorable Body to pass a resolution expressive of your readiness to confer the Degree of Doctor of Medicine upon such students as shall have complied with the statutes of this state, and shall be recommended by the Medical Faculty and Board of Trustees of Geneva College, as worthy thereof, and entitled thereto.

And your petitioners will ever pray, &c.

THOMAS SPENCER,
JNO. GEO. MORGAN.

Dated the 9th February, 1835.

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ART. V. *On the Influence of Trades, Professions, and Occupations, in the United States, in the Production of Disease—being the* PRIZE DISSERTATION *for* 1837. *By* BENJAMIN W. M'CREADY, M. D. *of New-York.*

Vitæ genus, præsertim quod a exercitationem aut ignaviam, multum facit, hominesque ab aliis morbis incolumes præstat, ad alios proclives reddit.
Conspectus Med. Theor.

The writer of the following essay is aware of its numerous faults. He knows that his statements are often too general; that many of the points touched upon are imperfectly treated of, and that others, equally belonging to the subject, have been wholly neglected. He must plead, as his excuse, the difficulties of the subject itself, and the shortness of the time that he was enabled to devote to it. This last is certainly no apology for errors, but it may account for omissions. With regard to the subject, it is one the surface of which is open to all, but in which it is very difficult to penetrate beyond the surfac. Workmen are so little attentive to the causes which affect their health, and their views are so often warped by prejudice or interest, that little reliance can be placed upon them; yet in the absence of statistical data, it is from workmen that we must obtain our information. To numerous written inquiries, directed to those who from their situation were thought most competent to pronounce upon the questions, few, very few answers have been received, and these have sometimes been conflicting and contradictory. The books of the different union societies of mechanics, have been as far as possible resorted to, to discover the annual mortality in a given number of workmen; but often such records have not been preserved, or they are imperfect: by impressing as far as he was able upon the secretaries of those societies, whom he saw, the importance of preserving such records, the writer hopes he has facilitated future inquiries upon the subject. The following pages are to be regarded as a small

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portion of an extensive investigation. That investigation is curious in itself and must lead to important results: the interests of science and benevolence are alike concerned in it; and if this essay succeeds, in any measure, in directing public attention to the subject, it will neither be without its use or its reward.

New-York, January 3d, 1837.

With a full and nutritious diet, free exercise in the open air, proper clothing, and moderate employment of the intellect, other things being equal, man would undoubtedly attain the greatest longevity of which he is capable. Unfortunately, constituted as the social system is, few can live in the manner best suited to their physical welfare. Many are necessarily confined to an impure atmosphere; many labor longer and harder than is consistent with the long maintenance of perfect health; many are subjected to the deleterious influence of dust or effluvia, caused by the nature of their employment; and to these evils are added others occasioned by ignorance, negligence, or custom. The degree to which the health and longevity of mankind are affected by the employments of civilized life, becomes then an interesting object of inquiry; nor would it be less useful than interesting, if we could discover the means by which some of the evils complained of might be corrected or alleviated.

Agriculture is the oldest, the healthiest, and the most natural of all employments. The husbandman, in general, enjoys pure air, and varied and moderate exercise. In this country his diet is always abundant and nutritious, and his habits much more temperate than those of the manufacturing or laboring classes. His diseases commonly are acute, and such as are incident to an active and vigorous constitution, and he is free from the majority of nervous and dyspeptic ailments so prevalent in large cities. Fevers, rheumatism, inflammation of the lungs, diarrhœas, and dysentery, are common. Intermitting and remitting fevers are endemic

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throughout a great part of the country, particularly in the south and west. At the south, the nature of the land along the Atlantic sea-board, its low and marshy situation, and the long continued heats of the summer, render bilious remitting fever of an aggravated type, particularly rife, attacking, in almost every instance, the stranger from the north, and in too many cases, proving fatal to the acclimated resident.

In no country have such frequent proofs been met with as in our own, of the fact, that lands which in a state of nature are tolerably healthy, are productive of disease when first brought under cultivation.* At the west, the clearing of the rich and teeming soil, perhaps never before broken by the hand of man, is almost invariably followed by the appearance of *remitting* and intermitting fevers, lighter or more aggravated, according to the nature of the locality. The richest soil, that found along the alluvial margins of the rivers, is unfortunately most prolific of disease; and ignorant or careless of this circumstance, the new settler frequently sacrifices his health, which might have been preserved by a more judicious location. Frequently, too, he is a foreigner, or from the more healthy parts of our own country, and he exposes to the first fury of disease a constitution the least prepared to resist its violence. The emigrant would find it generally to his advantage to settle on lands which have already been cultivated, and leave the task of clearing the forest or ploughing up the prairie, to those to whom long residence has lessened the danger, and whose habits render it a pleasure. Dysentery is prevalent in the localities productive of fever, and in them also we see too frequent examples of the influence of malaria, when long continued, in breaking up the constitution. The sallow face, the tumid abdomen, the ague-

* "In the midst of great forests the sun never visits the surface. Intermitting fevers do not prevail in such places. Families who live in the Dismals, employed in making shingles, without a perch of clear or dry ground, enjoy better health than people who live on their new plantations near the rivers or swamps." Dr. Williamson's History of North Carolina. The Dismals are swamps covered with a thick growth of cypress or juniper.

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cake, the enlarged liver, and last of all the fatal dropsy, are the strongly marked proofs of its terrible power.

A proper degree of knowledge diffused among emigrants would go far to prevent these evils. Rapid as is the growth of that section of our country, many years must elapse before the vast extent of public lands at the west can be settled, and it would be worthy of our government to institute an accurate survey of those lands, in which should be stated not only the number of acres, and their situation, but the qualities of the soil, its productions, and its probable healthfulness. Means too might be taken to enlighten the settlers upon the method of choosing the best sites for their dwellings, and the means best adapted to prevent the effects of malaria upon their constitutions. The constant use of flannel, a careful avoidance of the air of the evening and early morning, the location of their dwellings on the best, instead of, as too frequently happens, upon the most unwholesome site in their property,* and making the sleeping apartments as far as possible from the ground, would save many a valuable life.

Consumption does not appear to be so prevalent in the country as in the city, and when it does set in, its existence is more protracted. Pure air and active exercise, by strengthening the habit, prevent the developement of the disease; and experience is not wanting to prove, that even when it has become confirmed, the same agents afford the best means of retarding its progress.† It is much less fatal in the southern and western than in the middle and northern states.

* "The most unhealthy points are in the vicinity of mill-dams and marshes, near both of which the settler takes particular pains "to locate"; near the first, for the convenience of grinding and sawing, and near the last for the rich grass they afford with only the trouble of mowing. Health indeed, is the last thing a settler seems to think of, by the way in which he chooses a site for his house. In a country so abounding with lakes and streams of the purest water, and filled with fish, that you may pass a dozen in a ride of as many miles, you but seldom find a house on their banks; while the purchaser of a new possession neglects alike the tempting looking oak-opening, and erects his dwelling in the thick forest, provided only a road or a trail passes within three feet of his door."—*Winter in the West.*

† See two essays by Dr. Parrish in the North American Medical and Surgical Journal. Thackrah says, "Cases of consumption are not compara-

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In the United States, from the rapidity of their improvement, and the great number of public works which are carried on, rail-roads, canals, &c. laborers form a large and important part of the community. Almost wholly foreigners, and chiefly Irish, they bring with them to our shores, frames uninured to the climate, and habits and tastes which in all climates are injurious. They are short-lived; it is rare to meet with a laborer over fifty years of age, and they are generally broken down before they reach that period. Their misfortunes frequently commence before they reach this country. Cooped up in the steerage of a vessel, in a confined and impure atmosphere, often with scanty or improper food, they rarely arrive here in perfect health. In many instances they have œdema of the extremities, attended with debility and derangement of the stomach and bowels. Cutaneous eruptions are common among them upon their first arrival, particularly boils and ecthyma. A species of carbuncle of the lower extremities is likewise very common; in many cases they attribute this to some bruise which they have received on board; erysipelatous inflammation follows the injury, one or more minute openings are formed, a portion of deadened

tively numerous, nor is their progress so rapid in smoky towns as in the purer air of the country." The opinion of the best informed physicians I have had an opportunity of speaking with on the subject, is decidedly contrary to this. Indeed next to hereditary cachexia, an impure atmosphere is perhaps the most powerful agent in the production and developement of tuberculous affections. The breathing of some patients certainly may be easier in an impure atmosphere, but this must be a rare idiosyncracy. The air of an hospital is invariably injurious to phthisis. Though upon elevated ground, well ventilated, and not too crowded, the cases of phthisis which I saw in the New-York hospital, while in that institution, steadily progressed from bad to worse, while two, whose strength was not much broken upon leaving the institution, and resuming an active life in the open air, when I saw them several months afterwards, were stronger and healthier than before. One was a stout young Swede, a sailor, who had had for some time purulent expectoration, and hectic fever, with broncophony under one clavicle so loud as to approach to pectoriloquy. The other was an American, an engineer on board a steam-boat, who had had copious hemoptisis, attended with a dry cough and dulness on percussion, and broncophony under the clavicles. What rendered this the more remarkable, was the fact that after leaving the hospital he had been employed in a coal yard.

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cellular tissue is discharged, and with a little attention the ulcer heals. Often however the complaint runs the same course, when it can be ascribed to no local injury. Fevers sometimes occur upon their first landing, it may be, owing somewhat to their sudden change in diet.*

Laborers upon canals and rail-roads, in unhealthy districts, are exposed of course to malarious dieases, and in some localities the mortality has been very great. The danger is much increased by their habits, and intemperance, insufficient clothing and exposure, often make terrible havoc among them. On some of the public works spirits are allowed them by the contractors.† It would certainly not be unworthy of the companies by whom these works are carried on, to pay some attention to the health of the poor laborers who are their instruments. The laborers are in a measure under their control, and by withholding from them as far as is possible, all stimulating liquors, by supplying them with flannel clothing, and with proper medical attendance, much misery might be prevented.

The city laborers are generally intemperate, and many of their diseases can be traced to this prolific source of evil. When an accident occurs, or when any disease sets in, by which they are restrained from taking their usual quantity of stimulating liquors, delirium tremens, to a greater or less extent, makes its appearance, complicates the symptoms and interferes with our treatment. Erysipelas is common, particularly after slight injuries, and it is generally of the phlegmonous variety. During the summer months, diarrhea, attended with gastric irritability, is much more common with

* Thackrah says, that the Irish recruits in the British army have almost invariably an attack of fever soon after their first enlistment, owing to sudden changes from a diet almost exclusively vegetable to a fuller and more nutritious one. The same change after the confinement of the voyage may operate still more forcibly.

† On asking a laborer whom I found suffering under the symptoms of incipient delirium tremens, "whether he was in the habit of drinking ardent spirits"—"Nothing more than the allowance," was the reply, and that allowance was five glasses per day.

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them than with the other classes of society. The cases which I have seen appeared to be caused by the united influence of heat and intemperance, aided perhaps by the close and impure atmosphere of their sleeping apartments. The skin is hot, the pulse frequent and full though soft, the tongue trembling and covered with a dark coat; the thirst is great, the stomach is excessively irritable, the matters ejected consisting of the drinks tinged green or yellow, and frequently of large quantities of what appear to be a thick tenacious mucus dyed of a deep green, and the stools are frequent and watery. Hot fomentations to the abdomen, a few doses of calomel and opium, followed by a mild eccoprotic and opiates, is the treatment which I have found most efficacious in controlling the disease, though with every attention it generally lasts a number of days.

One great source of ill-health among laborers and their families, is the confined and miserable apartments in which they are lodged. In the rapid growth of our city * in particular, the number of buildings has by no means increased in a manner corresponding to the great influx of strangers. The accommodations are insufficient, and the rents in consequence extravagantly high. Upon no class of the people does this evil weigh so heavily as upon the laboring population. To give an instance of this—the garret of a small two story building in Catharine-street is divided by board partitions, into three apartments. The stairs leading to the garret are broken and have lost their bannisters, and the flooring of the rooms is broken through in several places. The ceiling in the centre of the garret is not higher than twelve or fourteen feet, and from this it shelves off towards the eaves of the house. For the largest of these rooms, about twelve feet by fourteen, and the only one which has a fire-place, $1.50 per week is demanded, and for each of the others $1, and $1.25 per week respectively; so that the *rent* of the garret alone, amounts to $195 per annum. For

* New-York.

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a cellar, small, damp, lighted by a single broken window, and the walls formed by the naked stones of the foundation through which the moisture was constantly exuding, $65, payable quarterly in *advance*, was demanded and obtained.* Nor are these singular examples; in every instance that I have inquired, I have found the rents of the laboring poor in a similar proportion.

Another evil resulting from a crowded population, and the consequent exorbitant rents, is the manner in which houses, intended for the poorer classes of our community, are constructed. In some instances large buildings, designed for breweries or sugar-refineries, have been divided into numerous small, dark rooms, every one of which is tenanted by a family. In other cases the cupidity of landlords has tempted them to build up narrow alleys with small wooden tenements, which, costing but little, and being let to numerous families, yield immense profits. The alley is often not more than six feet wide, paved with round stones and with very insufficient means for draining off the water. It is not uncommon in such situations, to find one or two of the apartments in each house entirely under ground. Can we wonder if in such a state of things we find moral as well as physical disease, vice as well as sickness? Can we expect men who live thus to be sober and orderly, or women to be cleanly and domestic? In such situations, during the summer months, diarrhœa and dysentery are rife, and among children fatal. Scrofula, in some of its protean forms, is frequently met with, and they form the lurking places where small-pox, measles, and scarlet-fever lie covered under the ashes, or when circumstances are favorable, blaze up into sudden fury.

Is the evil without a remedy? There are great quantities of unoccupied ground in the upper and eastern parts of the city, which if small buildings were placed upon them, for the accommodation of the poor, would yield sure and

* The tenant was a washer-woman, a widow, with a child.

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ample returns to the capitalist. Buildings could be run up at Hoboken, Williamsburgh and Brooklyn, sufficiently near to the city to enable the laborer to be in time for his morning work. The state of the ferries for a few days during the winter, would be no objection to this plan, since during those days scarcely any laborers are at work. The municipal authorities certainly have power to prevent the building up of alleys like those described, which must necessarily be filthy and unwholesome. In times of public danger and alarm they have interfered in a manner which has proved invidious and oppressive; now nine times out of ten, nay ninety-nine times out of a hundred, the places in question form the hot-beds in which the seeds of infectious diseases are first received, and in which they are nourished, and their growth is promoted, until they acquire strength sufficient to bear the open air. Would it not be easier to prevent the evil than to check it when it is formed? It may be said that the habits of the class alluded to are uncleanly; admit the objection—is this a reason for crowding them into a space so narrow that their filth must acquire virulence by concentration? Motives not only of mercy for the poor, but of fear for ourselves, call for a reform; for infectious diseases when once fully developed, do not always confine themselves to the localities in which they originate. The enactment and enforcement of a few wholesome laws, and the attention of capitalists to the erection of buildings for the poor, which would yield greater and as sure returns as more elegant dwellings, would render the city more healthy and prove of incalculable benefit to the laboring population.*

* It may be thought that the picture here presented is too highly colored, —that the laborer is well paid, and that with sobriety and industry he could live well and comfortably. If the accommodations were sufficient, and the rents at all proportioned to his means, this indeed would be the case: but at present he has to pay a large portion of his scanty earnings for such a lodging as brings disease upon himself and entails it upon his offspring. Since writing the above, another forcible example has presented itself, of the miseries under which the poor suffer. The basement of one house in Cross-street, twelve feet under ground, is occupied by eight families. That house alone has furnished almost as much employment to the physician of

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Seamen have varied exercise, pure air, and a full diet, but their exertions are often violent and long continued. They frequently pass from one extreme of climate to another, and their diet, though full, is little varied. Their occupation is of a kind to call into play chiefly the muscles of the trunk and arms, and when they adopt their profession early in life, this has a very manifest effect upon their figure, increasing the size of the upper half of the body, somewhat at the expense of the lower. They are often called upon to make violent and long continued exertions while they are at the same time exposed to wet and cold, but this in general is attended with less evil effects than we would anticipate, probably on account of the excited state of their minds at the time.

The heat of the ocean is much more agreeable than that of the land, so that while at sea and keeping nearly in the same latitude, the sailor is not so liable to those complaints which have change of temperature for their exciting cause; it is upon approaching the coast that he is chiefly attacked by the acute diseases to which he is most liable. Rheumatism and pneumonia are common; rheumatism, both acute and chronic, in a particular manner—often one half the patients in the marine department of the New-York hospital are rheumatics.

It has been said that consumption is not so frequent among seamen as among other classes of the community. I have no means of judging what proportion of seamen, in any giv-

the Dispensary who attends it, as the rest of an extensive district. It is idle to say this is their own fault; they cannot help it: In every instance that I have made the inquiry, they acknowledge themselves aware of the injurious effects of living in such places, "but what can they do; there are either no rooms to rent, or if there are any, the rents are utterly beyond their means." One landlord who has houses which he lets out, by the week or month, to such tenants, informed me that they have been several times changed, and that each time he had demanded and obtained an increase of rent, adding, "that while the rents of the better class of houses either fall or remain the same, those of the poor must be raised, since while they rapidly increased, few new houses were put up suitable to their accommodation."

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en number, has been affected with that malady, yet it is certain that many of the patients in the New-York hospital are consumptive sailors. A priori we should suppose that where any predisposition to the disease exists, the cold and exposure consequent upon coming upon our coast during the winter season, would be likely to call it into action. Nor are the habits of seamen when on shore, calculated to prevent the access of a complaint whose approach is favored by every excess, which may lead to consequent exhausti o nand debility.*

During the last summer and first fall months, the seamen who sail between the northern and southern parts of the Union, are very liable to the bilious remitting fevers which during that time prevail in those sections of our country. It is a common and very fatal disease. Diarrhœa of an intractable character, dysentery both acute and chronic, and dropsy, are not uncommon among those who are in the habit of sailing to tropical regions, and these complaints are aggravated by the proverbially reckless conduct of the seamen.

The change of temperature alone in passing from a warm to a cold climate, and vice versa, does not of itself, when proper precautions are employed, seem to be very detrimental to health. Many instances are on record, of national vessels manned by numerous crews, passing rapidly from a cold to a warm climate, and the contrary, in which not a single death had been the consequence of the change; but when a crew unprovided with proper clothing, coming from a tropical region arrives upon our coast in the winter season, great suffering and frequent disease is the necessary consequence.

Seamen are short-lived. Their duty is of a kind which requires a peculiar activity and alertness of motion, so that few of them are fit for sea after 50 years of age, and a little

* From a table inserted in "Johnson's Essay on the Influence of Tropical Climates," it appears that out of 2113 patients admitted into the hospitals of Minorca, Malta and Gibraltar, from the Mediterranean fleet, during the years 1810—11—12, 455 were affected with phthisis, 140 with pulmonic inflammation, 1242 with fever, and 175 with dysentery. The number of cases of phthisis is fearfully large.

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time longer beholds them waste away and disappear. That this depends upon nothing in the nature of their profession, is evident from the fact that we frequently see captains of vessels, who have long sailed before the mast, but who have been promoted on account of their good conduct, arrive at a green old age, remarkable beyond other classes for the haleness of their constitutions. It is while on land that the sailor contracts most of his complaints, by a conduct sufficiently reckless and intemperate to ruin in a short time the hardiest frame. Intemperance is his great vice; too often he is no sooner on shore than he yields himself up to the grossest debauchery: while senseless from the liquor he has drunk, he is an easy prey to the harpies by whom he is surrounded, and the hard earnings of months or years are in a few days entirely dissipated. Much of this evil depends upon the sailor himself, yet were he to wish to reform, there are obstacles in his way; while on shore, unless he has a home of his own, he must resort to the "sailor boarding houses," and there every inducement is held out to him to indulge in habits to which he is already too much inclined.

In an appendix to "Reynolds' Journal of a Voyage around the World," is a detailed account of the health of the crew of the frigate during the cruise, by the assistant surgeon Foltz, and as I have been informed by surgeons of experience in the navy, that the mortality on board the frigate was about the average of what occurs in the service, I am induced to give place to some statements derived from it. The average number of men on board the Potomac was 490, and their average age was as nearly as could be ascertained 31 years. The frigate was absent from the United States two years and nine months, and the whole number of deaths during that time was twenty-five; being every year one out of 53.9. Of the twenty-five, sixteen died of dysentery, three of phthisis, one of hepatitis, one of strangulated hernia, one of hydrocephalus, one of fracture of the spine, and two were shot. Subtracting the three deaths which were the result of accident, it would leave one death per annum out of every 61.25

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men. The daily average of those excused from duty, in consequence of illness and slight injuries, for more than three years, was twenty-eight, or one out of 17½.*

The whole report of Dr. Foltz is interesting, and I give place to an abstract from it at the risk of being considered diffuse, and occupying an undue portion of space by the subject under discussion. The Potomac sailed from New-York on the 24th of August, 1831, all the crew at that time being in good health, except one officer, the commodore's clerk, who entered upon the voyage for the relief of a phthisical complaint under which he was laboring. On the 8th of October she crossed the equator with 22 on the sick list, mostly cases of catarrh, and slight injuries, and arrived at Rio Janeiro on the 15th of the same month. Here the thermometer averaged 76° at noon, the crew was daily supplied with fresh provisions and indulged freely in tropical fruits. A number of cases of diarrhœa and derangement of the bowels was the consequence. On the 5th of November she sailed for the Cape of Good Hope, where she arrived on the 6th of the next month. The passage was rough, with much rain, and thick foggy weather. Forty-two, during this time, were admitted with diarrhœa and dysentery, the most of the cases appearing immediately after leaving port; twelve cases of intermitting fever likewise occurred in those who had had the disease the previous autumn in the United States.

They left the cape on the 12th of December, and sailed for the west coast of Sumatra. Soon after their departure, the weather was cold and rough; several cases of pleurisy now occurred, and many had colds and catarrhs. During the passage, the crew was formed into divisions, and exercised in the use of fire-arms and the cutlass, preparatory to an attack upon Qualah Battoo, the main object of the expedition. So great was the excitement produced by the prospect of the

* Dr. Foltz observes that the ship was new, and the sick-list on that account rather larger than usual. The unhealthiness of new ships is supposed to be owing to the large quantities of salt used in building, which attracting moisture from the atmosphere, renders the ship damp and consequently unhealthy.

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approaching attack, that the sick list was smaller during the passage than at any other period of the cruise. On their arrival at Qualah Battoo on the 5th of February, 1832, there were but three on the sick-list. On the next morning the attack was made, in which two were killed and eleven wounded. The frigate remained twelve days at Qualah Battoo, during which time the thermometer stood at about 85° with but little variation. In a short time the sick-list swelled from three to fifty-seven. Fifty-two cases of complaints of the bowels, and twelve cases of bilious fever were reported within a month.

On the 16th of February they sailed for the island of Java, where they arrived after a passage of eighteen days. On the 25th of February there were thirty on the sick-list, which was made up of cases of diarrhœa; no new cases having occurred since leaving port. Portions of the beef, pork, and beans, which constituted the daily rations of the crew, were discontinued, and rice and curry served out in lieu of them. The spiritous ration was likewise divided into three parts, one of which was given in the morning, another at noon, and a third in the evening. The men were ordered to wear flannel, and were daily inspected by the officers to see that the order was complied with. The Potomac arrived at Bantam bay on the 6th of March, and remained there and at Batavia until the 10th of April. The sick-list increased and continued large, consisting of cases of diarrhœa, enteritis, and dysentery, a number of which proved fatal. She left Batavia on the 10th of April with 42 men unfit for duty, twenty-five of whom were affected with dysentery, and on the 20th of May arrived at Canton. During the whole time the Potomac was in the Java and Chinese seas, there were one hundred and fifty cases of dysentery and thirteen deaths; a number of the crew remained affected with chronic dysentery, several of whom afterwards died. The vessel remained seventeen days at Canton, the thermometer averaging about 80° and a regular sea-breeze blowing. During this time, the average number excused from duty was twenty-six, three-

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fourths of whom were chronic cases of dysentery; there were likewise several cases of bilious fever.

On the 5th of June they sailed for the Sandwich Islands; the passage was boisterous, with much rain, and the thermometer averaging about 72°. Two deaths occurred from chronic dysentery, and the average number on the sick-list was twenty-eight. No new cases of enteric disease occurred, yielding to pleurisies, catarrh, and intermitting fevers. They arrived at the Sandwich Islands after a passage of forty-eight days. While they remained at the Islands, the crew being permitted to go on shore, and there obtaining spiritous liquors, the sick-list increased in consequence, there having been seventeen on the list upon their arrival, and twenty-six upon the day they sailed, twenty-three days afterwards.

On the 15th of August, they sailed for Otaheite, where they arrived after a passage of twenty-eight days, during which the weather was warm, but a part of the time stormy. The sick-list averaged twenty-four, consisting principally of cases of chronic dysentery; there were likewise twelve cases of intermitting fever. After remaining six days at Otaheite the frigate sailed for Valparaiso. During the passage, which lasted thirty-four days, they encountered much wet and boisterous weather; the thermometer fell from 84° to 55°, which was lower than it had been since they had left New-York. The average number on the sick-list was thirty-five, of whom twenty-two were admitted with rheumatism, and sixteen with pleuritis; two were affected with scurvy, the symptoms however were mild and readily yielded to treatment. The frigate remained forty days at Valparaiso, during which time the thermometer averaged 66° and the barometer 29.75. There was on an average thirty-five upon the sick-list, the cases consisting principally of lues venerea, mania a potu, and derangement of the stomach, caused by the excesses of the crew while on shore.

On the 2nd of December, the Potomac sailed for Lima. She remained there seventy-five days when she again returned to Valparaiso. While at Callao, one of the crew died of

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phthisis. During the second stay at Valparaiso, the average on the sick-list was twenty-one, the list being swelled by the excesses of the crew on shore. Fourteen were reported with scrofula, sixteen with rheumatism, twenty-two with hepatitis, and thirteen with syphilis.

On the 20th of May the vessel sailed for Coquimbo, where she arrived in three days. Here the small-pox making its appearance on board, it was determined to inoculate all those who were not already marked by the disorder. Two hundred and eighty-seven were inoculated, in ninety-five of whom only did the operation succeed; all of these had the disease in a mild form and speedily recovered. By the 8th of July, the crew were so far recovered as to enable the commodore to sail for Callao. Here two sporadic cases of small-pox occurred. They remained at Callao thirty-five days, with the thermometer standing at about 69°, with a variation of but one or two degrees, and the atmosphere damp and foggy. The average on the sick-list was twenty-eight. Several cases of low-fever occurred, and fourteen were admitted with adenetes. On the 22nd the frigate sailed for Payta and shortly afterwards for the Gallapagos islands. Here almost under the equator, a large number of the crew were daily on shore after terrapin, and travelling over the burning lava with these immense animals on their backs; yet their health remained comparatively good; no spirits could be procured, and they were kept upon their regular allowance. The thermometer stood at about 73°, the barometer at 29.75. The diseases were principally diarrhœa and dysentery, with a few cases of hepatitis.

After remaining a few days at the Gallapagos, the Potomac sailed for Gauyaquil, and a few days afterward for Payta. Here the thermometer averaged about 70°, with a dry and a clear sky. During a stay of nine days at this place the sick-list was reduced from twenty-eight to fifteen, and these were mostly chronic cases of dysentery. On the 10th of October the Potomac sailed from Payta, and on the 27th arrived at Callao. In a few hours after leaving port, the

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thermometer fell about 10°, and the atmosphere became thick and foggy. During the passage the sick-list increased to forty. The frigate remained twenty-seven days at Callao, the thermometer averaging 69° and the barometer 29.65, the atmosphere being clear. The average number on the sick-list was thirty, including a number of cases of scrofula.*

On the 21st of November the frigate sailed for Valparaiso where she arrived in twenty-five days. During the passage the average number on the sick-list was twenty-seven. While off Juan Fernandez the thermometer fell to 60° with fresh head winds; this was followed by six cases of acute hepatitis and by colds and catarrhs. Fifty-three days were spent at Valparaiso, the thermometer averaging 69° and the barometer standing at 29.70, with constant pleasant weather. The average on the sick-list was eighteen, made up principally of slight accidents and injuries resulting from excesses on shore. One death occurred here from phthisis, and one from accident. There were likewise several cases of hepatitis and intermitting fever. The vessel left Valparaiso on the 9th of February and doubled Cape Horn on the 6th of March, the thermometer standing at 46°, with thirty-six on the sick-list; the cases mostly consisting of pleurisies, tonsillitis and rheumatism. The lowest point to which the thermometer fell was 43°, at this time there were thirty-three on the sick-list, three-fourths of them laboring under inflammatory affections.

On the 23d of March the Potomac reached Rio, where she remained sixteen days, the thermometer standing at 78° and the weather showery. Here there were twenty-nine on the sick-list, and this continued to be the case for some time after leaving Rio, the new cases principally consisting of diarrhœa. The Potomac finally reached Boston, after a passage of forty-four days, on the 23d of May, at which time the

* These cases made their appearance in a warm climate, and in one as shown by thermometrical observations, remarkable for the equality of its temperature, yet they are characterised as "very obstinate."

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whole of the ship's crew were so well as to be able to take their discharge, excepting six, who were confined to the hospital, two with phthisis, three with chronic rheumatism, and one with fractured tibia.

When we recollect that at the time of the Potomac's leaving port all the crew were in perfect health, and afterwards that three out of twenty-five deaths occurred from phthisis, while two who were almost certain to die, were left in the hospital with the same complaint, we cannot help being struck with the greatness of the proportion. As a confined and impure atmosphere is one of the most active agents in the production and developement of the tubercular diathesis, the closeness of the apartments in which so many men were confined during the night, could not have been without its effect in producing the result; and it is to be wished that some more effectual and less cumbersome method of ventilating vessels may be invented than is at present in use.

The immunity which seamen at present enjoy from the scurvy, compared with the ravages which it formerly produced, cannot fail to be gratifying to those who hope for the progressive improvement of mankind; and to strengthen us in the belief that in future times some preventive may be found to maladies now as fatal as that was formerly.

In the navy of the United States, for the last two years, the the deaths among the officers have averaged one in fifty-five, being proportionally the greatest among the superior and petty officers who are the oldest men, and least among the midshipmen. Of these last, the proportion was only one in seventy-three.

In New-York the number of pilots is limited by law, sixty men only being licensed to act in that capacity. In consequence of this the apprentices are frequently advanced in life before a vacancy occurs to which they can be appointed. Fifteen deaths have occurred among the pilots in the last five years, being one out of twenty, every year. The oldest pilot belonging to the port is between eighty and ninety years of

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age, still active and still engaged in his arduous and hazardous profession. The first on the list of apprentices is thirty-two years of age.

It is only within a few years that the manufacture of woolen and cotton cloth has been introduced to any extent into the United States. One or two factories were indeed in operation at the close of the last century; but the amount of goods made was inconsiderable, the number of workmen few and these few wholly foreigners. Lately the business has rapidly increased, and now there are factories scattered throughout many of the states of the Union, while in New-England a very considerable population depend upon them as a principal means of obtaining a livelihood. From the lateness of their introduction, and from the fact that the majority of the adult male workmen are foreigners, no satisfactory opinion can be formed of the effects which the system is likely to have upon the health of the operatives engaged in it. The evils of factory labor, so far as I have been able to form an opinion concerning it, depend less upon any thing in the nature of the labor itself, than upon circumstances not necessarily connected with it, but which in England at least, have been found invariably to accompany its progress. Of these evils, the length of time which the operatives are employed, the confined and ill ventilated apartments in which they reside, their intemperate and inactive habits, and the bad quality of the provisions which they consume, are the principal. Often too the proprietors of factories are not aware of the importance of thorough ventilation, sometimes doubtless they are careless of it, and the workmen are compelled to breathe a deteriorated atmosphere. The employment of great numbers of young people from early years to work together in the same mills, to the neglect of all education, has been attended, in towns particularly, with the most dreadful moral consequences, and early profligacy is sure to be followed by physical degeneracy and premature decay. Nor can all the evils which *may* fall

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upon the operative, be yet fairly estimated, even in England itself. The continued employment of children, in a confined atmosphere, at a period of life when inclination, so often our best guide, calls for varied and free exercise in the open air, cannot surely be unattended with injurious effects in after life; and though the longevity of the first generation be not greatly affected, may not their children be more short-lived and weakly? Many diseases unknown to our ancestors have made their appearance in modern times. Have not these diseases been induced by changes in our habits and modes of living, and may not the extensive employment of young children in manufactories, entail upon *their* posterity new and strange disorders, or what would be equally melancholy, may it not tend to increase the prevalence of scrofulous maladies, already the great bane of our race?*

It is useless to discuss the question, if it be wise, with the immense extent of unoccupied land within the borders of our country, to encourage manufactures. If the question *could* be determined to the satisfaction of every one, before such determination could be arrived at, our manufacturers would no longer need the assistance of a protective tariff; and even in an enlightened community, the prospective evils of any particular employment are rarely of much avail against the pressure of immediate want or the allurement of present advantage. But though even if it were advisable, we could do little to prevent the extension of manufactures among us, we should not be less upon our guard against the evils they may induce, since thus those evils may be remedied in part, or even wholly removed.

* "The ultimate effects moreover of this employment on health and longevity are not apparent, as the young women leave the mill when they marry: and the males at the age of 14 and 16 generally turn to the cloth manufacture. That many of the disorders of after life, however, depend on the confinement in a close atmosphere, and the want of time for recreation and repose—in a word, on the unnatural manner in which children spend the years of youth and physical developement, is a question which we cannot satisfactorily solve."—*Thackrah.*

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In comparison with those in England, there are no large manufacturing towns in America. From the facilities for obtaining water-power, steam is not used to any thing like the extent it is abroad, and the manufactories instead of being crowded together, are spread over the country as the convenience of a mill-site and the choice of the proprietor may direct. The high rate of wages generally, and the facility of obtaining employment, has kept up the price of factory labor, so as to enable the operative to live in abundance and not unfrequently to accumulate property. Owing partly to this last circumstance, and partly to the fact that the labor of very young children is unprofitable, children are rarely employed in the factories under fifteen years of age.*

In the United States the labor of females is used to as great an extent as possible, being cheaper and more under control than that of males; many hundreds of young women are thus separated from their families and brought into the manufacturing villages. So far, this has been attended with no evil effects upon the morals of the girls, cases of seduction being almost unknown, and so sensitive is public opinion on this subject, that if suspicion is attached to the character of any of the females employed in a factory, she must immediately leave it, or the females abandon it in a body.

One evil which is severely felt in our manufacturing towns, is the deficiency of accommodations for the workmen. They have most of them grown up with great rapidity, and the increase of buildings has not kept pace with the influx of strangers. †

* In the factory at New-Market, New-Hampshire, two hundred and fifty girls are employed, of whom nine only are under fifteen years of age, and of these six are fourteen.—*Life of Slater.*

† Speaking of Greenville, Connecticut, Mr. White, the author of the memoir of Slater, says, "The dwellings though not large, contain generally from two to four families, most of which take boarders." A small house containing three or four families, each of them taking boarders! Is it credible that where building materials are plentiful and land cheap, such a state of things can be permitted to exist?

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So far the experience of our country is not unfavorable to the healthfulness of factory labor. The mortality in manufacturing villages is not greater, as far as can be ascertained, than in rural districts, nor are the inhabitants more subject to disease; but as has been before observed, sufficient time has not elapsed since the introduction of manufactures, fairly to test the question. They have been likewise found, hitherto, favorable to morality and intelligence. Our countrymen thus far have enjoyed great and peculiar advantages, but whether the increased size of the towns, the diminished price of labor, or fluctuations in the demand for it, together with the evils which may attend upon the labor itself, may not bring about a different state of things, is a question time alone can determine. At all events it behooves us to be watchfully upon our guard against the evils which may happen, and check them in their bud, lest they grow to a size which may render interference dangerous, or inefficient. Children should never be employed to the neglect of their moral and intellectual education, nor should they be employed at all before fourteen or fifteen years of age. The operatives already labor twelve hours in the twenty-four; this time, to say the least, is abundantly long, and should not be increased, nor should they permit themselves to be tempted by the offers of higher wages, to engage in night-work, for once introduced, cupidity on the part both of the men and their employers, would render it common, to the injury and perhaps ruin of the health of the operatives. The factories should be well ventilated, and when from the size of the building or other circumstances, the current of air through the doors and windows should not be found sufficient for this purpose, other means should be resorted to. When dust is caused which may prove injurious to the respiratory organs of the workmen, measures should be taken to remove it or to protect them from its influence. Active sports and exercises should be encouraged among those whose labor is of a sedentary kind. Sufficient time

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should be allowed for meals. Attention should be paid to the dwellings of the operatives; they should be roomy, and where land is cheap, every family should have a house to itself, with a garden attached to it. Above all, the strictest watch should be kept upon the morals of the females employed in the factories. Separated from their families and friends, they are placed in a strange and untried situation: when our manufacturing towns become large, and as a necessary consequence, when dissipation and profligacy are introduced into them, who shall say that situation shall be devoid of danger?

ARTIZANS.

Tailors.—The tailor is occupied many hours of the day at an employment attended with little muscular exercise, in a bad position, and generally in a heated and confined atmosphere. The position is exceedingly unfavorable; the spine is curved and the shoulders are rounded so as to impede full and free respiration. His digestive powers are generally the first to suffer. He is annoyed with head-ache, vertigo, and those uneasy sensations about the scrobiculus cordis, indicative of an impaired tone of the stomach. From the want of sufficient exercise the bowels are torpid, and constipation aggravates his other complaints. His employment is favorable to the developement of phthisis in those who are at all predisposed to it, and the number of cases occurring in the trade is increased by parents apprenticing weakly children, as too delicate for hard work, to an employment the best calculated to develope their complaints, and render them fatal.

Fistula is said by Thackrah to be common among tailors, and I have seen more than one case of lumbar abcess among them. Their position, their inactive life, their dissipated habits, and the confined atmosphere which they breathe, would all tend, we should suppose, to render them obnoxious to this complaint.*

* I have seen likewise one case of remarkable fragility of the bones in a tailor. Both thigh bones had been several times broken from accidents,

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Tailors are short-lived. I have heard of one over seventy years of age, and several over sixty; but these instances are rare. Those who are prudent, generally obtain shops of their own, and live as long as any other class of men; but intemperance and confinement make sad inroads into the health of the journeymen. Liquor relieves temporarily the uneasy feelings caused by their employment. Once indulged in, it soon becomes necessary, and the evil consequences upon intoxication are added to those caused by confinement and inaction.

Tailors measure less around the chest than other artizans. While that of the laboring population generally is thirty-four inches, the tailor measures on an average, but thirty-two.*

Thackrah recommends that the position of the tailor be amended. In the ordinary posture seated on a flat board, he must bend the trunk considerably in order that he may see distinctly his work which rests upon his knees. Let a hole

which in a healthy man would have been attended with little inconvenience. The man was in the prime of life, of a pale countenance, and emaciated person. It is well know that exercise renders the bones tougher, and stronger, and we can readily imagine the reverse to be equally true, and expect fragility as well as softness of the bones, to be the consequence of inaction.

* The slender appearance of our population has frequently been noticed by foreigners. The Americans are not, on an average, so large round the chest by two or three inches as the Germans, or the inhabitants of the British Islands. An intelligent tailor informed me, and confirmed his information by a reference to his book, that the Americans leading a sedentary life, do not average more than thirty-two inches around the chest, and those engaged in laborious occupations, more than thirty-four, while the English and Irish average thirty-five or six, and the Germans still more.—He had lately measured a number of Germans who had enrolled themselves in a military company, and their average measurement around the chest was over thirty-seven inches. I am aware that this difference does not obtain in all parts of our country. Indeed, I have been informed, that in a particular section in Virginia, on one side of the mountains which run through the western portion of that state, the inhabitants are much larger every way than either the rest of our countrymen, or than Europeans, in general. Although more slender, our countrymen are, I believe, taller than foreigners. The causes of these differences would form a curious subject of inquiry, but it is beset with many difficulties, and this is not the place to enter upon their discussion. Certain it is, that the diminished stoutness of our countrymen is not attended with any proportional decrease of strength-

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be made in the board, and his seat placed below it; he will thus be enabled to keep the body erect, and the abdominal and thoracic organs will no longer be subjected to hurtful pressure. But an amendment of much greater consequence might be effected in his habits of intemperance and inaction. He is in some seasons urged by the demand to work longer than is consistent with health. At the beginning of winter this is particularly pernicious. The general health is impaired, and as a consequence, the power of generating heat lessened, and the artizan is cold and chilly. This leads to closer confinement and greater inaction. The digestive powers fail, the circulation is languid, the countenance becomes pale, and the body emaciated. He is now, with deficient ventilation and imperfect nutrition, in the very situation most favorable to the developement of pulmonary tubercles. If weakened, nervous, and exhausted, he is not previously cut off, is it surprising that they should be developed?

The posture of the shoemaker is bad: the spine being curved and the viscera of the abdomen and thorax compressed. During the cooler months, from his position and the inaction of his lower extremities, a feeling of chilliness being induced, his apartment is generally heated to a degree insufferable to those unaccustomed to it. During those months, too, the shops are very insufficiently ventilated, and too many journeymen are crowded into them, while those who remain at home, working in the same room with their families, breathe an atmosphere still more deteriorated. A susceptibility to cold is thus generated, and they become liable to rheumatism, catarrh and pulmonary affections. Intemperance is common, and adds very much to the evils which

An intelligent officer informed me, that in the navy they are commonly preferred, since with equal strength they unite superior alertness and more correct habits; and in the army, I am told, they are better able to bear long and fatiguing marches than the foreigners who compose a large part of our little force. The opinion of the best informed master-workmen with whom I have conversed upon the subject is, that while our countrymen are somewhat inferior in point of strength, in raising a dead weight, for instance, they are superior in all operations requiring dexterity and alertness.

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they suffer. Independently of its moral effects, it lessens the vigor of the constitution and thus renders them still more liable to the complaints to which they are predisposed.

Consumption is prevalent, and as in the case of tailors, the number of cases occurring in the trade is increased by delicate children being apprenticed to it as a light employment.* Derangement of the stomach, and its concomitants, headache, diarrhœa and consumption, are common. I am persuaded that in this, as in other sedentary employments, the disorder of the stomach is not so generally the first in the train of events as is imagined. The activity of the circulation and the energies of the nervous system, become first impaired. The cheek is pallid and the artizan feels languid and chilly. These symptoms are however little noticed, but when the stomach becomes affected it makes its complaints heard, and headache, impaired appetite, and the thousand indefinable and uneasy sensations dependent upon imperfect digestion, awaken the attention of the sufferer to the inroads that are making upon his constitution.

The evils attendant upon shoemaking are by no means irremediable. In many of the shops, particularly in the smaller towns, it is customary for the journeymen immediately upon rising from their work to dance and whistle or sing. This exercise imparts new vigor to the system, removes the incipient feelings of uneasiness occasioned by their work, and is particularly useful from the hilarity and cheerfulness it produces. Were such exercises encouraged and rendered general; were the workshops well ventilated and kept clean, and were intemperance abolished, we should no longer hear of the unhealthiness of shoemakers. Two of the healthiest looking men I am acquainted with are shoe-

* To so great an extent does this take place, that a respectable master-workman assured me, "that but for this circumstance the men would be as little liable to consumption as other artizans." He himself had had frequent applications from the parents of such children, but had invariably refused receiving them, on the ground that it was an employment calculated to increase their complaints.

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makers; both have worked over thirty years upon the bench and both look younger than they are in reality. But both are perfectly temperate men, and both have attended to ventilation, to cleanliness and exercise.*

In the country, I have heard of a number of instances of longevity in this class of artizans, one man working till over eighty and living to near one hundred years. In the city I have heard of but one journeyman shoemaker over eighty years of age, and he did not work for a long time prior to his death.

In the Cordwainers Benevolent Society, for the last twenty-five years, the number of deaths has been one in 78.7 per annum. The average number of members belonging to the society has been 134.5, and the average number of deaths 1.72 yearly. The whole number of deaths was forty-three, and of this number four committed suicide, all by drowning. This society is composed of both journeymen and master-shoemakers. Upon giving up their trade and entering on other employments, the members do not necessarily forfeit their membership, and thus many of them are now cartmen, grocers, custom-house officers, etc. In the United Benevolent Society of Journeymen Cordwainers, men's branch, for the last fifteen years, the deaths have amounted to but one in 115 per annum. The average number of men belonging to the society has been 237.4, and the average annual number of deaths 2.06. The smaller proportional number of deaths occurring in a society composed exclusively of journeymen, probably depends upon there being fewer old men belonging to it. Both societies however ex-

* One of them told me, that when a young man, he worked in a small room by himself, and boarded in a private family. His room was neat and clean, but the fare was indifferent, and he wished to seek more comfortable quarters. At a little distance was a large shop in which a number of workmen were employed. He determined to apply there for an engagement; but upon entering the apartment, the heat, the effluvia from so many bodies, and the dirt, sickened and disgusted him. He turned back and again sought his former lodging, preferring his clean room and meagre diet, to the filth and more luxurious fare of the workshop.

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hibit a smaller amount of mortality than was to have been expected.

Mantua-makers, dress-makers and milliners, have an employment which demands little muscular exertion. They generally sit with the head bent and the spine curved forward. At particular seasons, there is a great demand for their labor; at those seasons they frequently work fourteen or fifteen hours in the day; and during the winter their apartments are too warm and badly ventilated. The evils which they suffer then are those of a sedentary and confined life, and these evils are sometimes aggravated by an insufficient diet and imperfect clothing consequent upon low wages. This last effects more particularly the tailoresses. Those of them who work for the more respectable shops, doing what is called custom work, are well paid, earning from four to five dollars per week; but many employed in slop-work, that is in making up "ready made clothing," and those who make up clothing for the southern market, often earn very insufficient wages. Working for fourteen hours daily all the year round, they can earn only between two and three dollars per week, and out of this miserable pittance they have to pay not only for their board and lodging, their washing and clothing, but to lay by some small sum to support them during the frequent attacks of illness consequent upon such protracted exertion. Fortunately, however, this class of females generally reside with their parents, and they are not made to feel all the evils which would otherwise be consequent upon their situation.

Girls are put at trades at a time of life when the preservation of their health demands full and active exercise, and they are often compelled to abandon their occupation or their constitutions break down under it. Plethoric girls, those of full habits and soft fibre, are I think more apt to suffer immediately than those of more delicate frames. They become subject to headache, vertigo, pain in the side, leucorrhœa, irregularity of the menstrual function, to hysteria, and finally to chlorosis.

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In delicate girls, and those who have any tendency to phthisis, such employments are calculated to quicken the latent seeds of the disease into activy. Leucorrhœa is common. Their inactive life, the heat of their apartments during the winter season, the employment of foot-stoves and the use of a diet too full and nutritious for their mode of life, all have a tendency to produce this complaint. Hysteria too, is prevalent. The menstrual function is disordered, the stomach debilitated and deranged, the system weakened, and of course susceptible to impressions, and in this condition any unusual emotion or slight irregularity in diet, is apt to bring on a paroxysm. In several instances I have seen the paroxysms assume the form of determination to the brain, and in one case it could scarcely be distinguished from epilepsy; in the same patient the attack was occasionally attended with slight wandering delirium which lasted several days.

Seamstresses are much afflicted with those anomalous pains, accompanied by tenderness over some of the vertebræ, which have been attributed to "spinal irritation;" in this class of patients, however, the disease rarely yields to topical treatment. It demands for its cure, a removal of the causes which occasioned it—a change of air, of diet, and of habits.

There is one source of ill-health affecting a portion of this class of persons which, from its nature, must be touched upon with peculiar delicacy. After working during the whole day, if per chance they have an evening to spare, instead of employing it in a manner calculated to invigorate their enfeebled habits, they hurry off to a prayer-meeting or a lecture, where, in a crowded and ill-ventilated room, they are exposed to sources of excitement, which the already exalted sensibility of their nervous system renders doubly injurious. On Sunday, too, not contented with attending church three times a day, many of them are likewise engaged for several hours in the Sabbath schools. Such a line of conduct is almost sure to break down a constitution originally feeble.

The dress of females in this country is generally insuffi-

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cient during the cooler months, and in this class it is particularly so. Enfeebled by their employment they are not able to bear the exposure which a healthy person could endure without injury. Much improvement has certainly been made in this respect, within the last few years, but the general introduction of flannel next the person, of stout shoes, and woolen stockings would be of incalculable benefit.

We are not enabled to judge of the longevity of females who obtain their livelihood by the needle, since they generally marry, and partially at least forsake their employment. I know several who sewed constantly during their youth, who have obtained an advanced and healthy old age; these however must be exceptions, and many are certainly cut off before they reach the prime of life.

Sailmakers work with the needle, but their work is of a coarser kind, requiring considerable muscular exertion, and during part of the time carried on in the open air. When temperate, they are generally healthy; the odour of the tar to which they are subjected does not appear to be prejudicial, indeed some think it of positive benefit. In many instances sailmakers attain a good old age.

Printers. The occupation of letter-press printing does not seem to be injurious to the health of those employed in it. Many of the printers attain a good old age without being subject to any peculiar diseases. The employment of the compositors is sedentary; they stand almost constantly, and their eyes are much engaged in minute objects: hence the occupation is unfavorable to the weak, and to those who are predisposed to pulmonary diseases; the eyes from over-exercise are apt to fail early, and near-sightedness, though not caused is increased by the employment, and the position is apt to induce varicose veins and ulcers of the lower extremities.

The pressmen have considerable exercise, and from lifting heavy weights are liable to rupture. Occasionally a case of colica pictonum occurs, caused by the lead which enters into the composition of the type-metal; those who are inattentive to cleansing their hands, and those who hold the

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types in their mouths, are particularly liable to it, and it is said that new types more frequently produce it than those which have been used for some time, the metal gradually becoming covered with a thin layer of ink which serves to protect the compositor.

M. Chevalier,* in the inquiries which he instituted at Paris, into the diseases of printers, found the pressmen subject to an affection denominated by them "rossignol," "which they regarded as a painful lassitude, or rather sprain of the radio-metacarpal joint. It comes on, first, in the workmen who ink the forms when they resume their work, after an absence of some time from it: second, in pressmen who have given up their labors, and who attribute it to turning a handle which brings the form under that part of the machine which makes the impression: third, when the strap connected with the cylinder which rolls the press happens to break and the shock falls on the muscles of the wrist. It is not serious, and is cured by a few days' rest."

The printers who are employed upon the morning newspapers have to work much at night, and their employment frequently demands great dexterity and activity. They are more apt than other printers to indulge in spiritous liquors, and this together with the irregular hours they are compelled to observe, renders them more liable to disease.

Printing offices are generally too small for the number of men employed, and they are often imperfectly ventilated. In the city, this evil is increased by the offices themselves, for the most, being situated in the most confined and thickly built streets. The effects, though not perhaps noticed at first, are sure in the end to make themselves felt. One cause, no doubt, of the superior longevity of literary persons to that of artizans and manufacturers, engaged in sedentary occupations, is the purer atmosphere which they breathe; they have not, in conjunction with want of exercise, to encounter the slow poison of foul air.

There are belonging to the Typographical association of the

* British and Foreign Medical Review, 1836.

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city of New-York, from one hundred to one hundred and twenty members resident in the city; the death, and in general the sickness, of any one of whom is immediately communicated to the association. For the last six years, the deaths have averaged one in 44.7 annually.

Butchers are much in the open air, have varied and moderate exercise, and a full and nutritious diet. They are exposed to the odours arising from the new-killed meat, but this is productive of no injurious effect. They are thought to be peculiarly exempt from pulmonary consumption, and there is certainly nothing in the nature of their employment which would tend to produce the tuberculous diathesis; on the contrary their active exercise, full diet, and free exposure, offer the most favorable means of preventing its developement. They are generally healthy and often long-lived, but the fulness of their diet exposes them to apoplexy, and renders them more liable to inflammatory disease.

The atmosphere of the slaughter-house, impregnated with foreign effluvia, is said by Thackrah to be unfavorable to the extension of epidemic and contagious disorders, and perhaps the exemption of butchers beyond those engaged in other employments, from these complaints, depends rather upon their active habits and vigorous health.*

In England, butchers, according to Thackrah, though remarkably hale in their appearance, are generally short-lived, apoplexy and inflammatory affections taking the place of more insidious diseases. In this country, I am inclined to think, that this is not the case, on the contrary that their employment is favorable to long life, though in absence of accurate statistical information, any opinion drawn from personal observation is not greatly to be depended on.

The employment of the *Smith* demands great muscular exertion. He is exposed to a high temperature, and during the

* To the same atmosphere, Buffon, I think, ascribes the plump appearance of butchers, their high color and full faces. Singular, that philosophers will sometimes go so far in search of a doubtful and hypothetical cause, neglecting the simple and obvious one!

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winter the work-shops being slight, and frequently having no windows, he is exposed to great drafts of air and frequent vicissitudes of temperature, yet he is not particularly liable to colds or rheumatism.

Smiths are generally intemperate. The hardness of their labor proves an excuse for the indulgence in spiritous potations, and the habit once formed is rarely abandoned. That the use of spiritous liquors in not necessary, is abundantly evident, and it is a general opinion that even when taken in moderate quantities they are prejudicial. A smith in whose family I have attended tells me, that for above a year he has entirely forsaken the use of alcoholic drinks, and that he has not only been more healthy and better able to perform his work than before, but that in addition, he has enlisted in the city watch and takes his turn every other night without inconvenience.

Smiths are short-lived. I have heard of but one over seventy years of age. Whether this is dependent upon the excessive exertions, the vicissitudes of temperature to which they are exposed, or their intemperate habits, is a question difficult to resolve. It is probable that all have their influence, and equally probable, that intemperance and other excesses have more influence than both the other causes combined.

Gold Beaters, accordingly as they are employed in beating the metal into thin plates, or in dividing these last into squares and placing them in books, have great muscular exercise or almost none at all. The beating is done by means of a large hammer, alternately wielded in either hand, and being long continued, is exceedingly laborious. After the metal has been beaten out, the leaves are divided into small squares, and placed in books prepared for the purpose. From the extreme thinness of the leaves they are exceedingly light and liable to be blown away by the slightest breeze. On this account, even in summer, the booking has to be performed in rooms from which every breath of air is carefully excluded. This last branch of the employment is generally

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confided to females; sometimes, however, the men alternate it with the beating. From its nature, if long continued, it must be unhealthy; but the women, of course, leave it upon their marriage, and the men are engaged in it only as a relief from the severe exercise of the other branch of the employment. The glare of light reflected from the shining leaves, upon which in dividing them, the eyes must be constantly fixed, is likewise said to be injurious to the eye-sight.

Gold Beaters, when temperate, are generally healthy and long-lived; but they are much addicted to drinking. The majority of them are foreigners.

Carvers and Gilders have a sedentary occupation, and too often work in a confined atmosphere. They are generally pale, and have an appearance of languor and ill health; they are not, however, subject to any injurious agencies except those caused by the sedentary nature of their employment.

Carpenters. Ship Carpenters and Joiners when temperate, are healthy, and often long lived. Their muscular exertion is active and varied; they are much in the open air, and are not subject to any injurious dust or effluvia. They are somewhat exposed to accidents, particularly the ship-carpenters, from falls, and from the tools which they use, and when engaged in any employment which requires much stooping, are subject to pains in the back.

As I have before mentioned, instances of longevity are common among them. I have known one carpenter 84 years of age, still active, and still able to do a full day's work. Such instances as this must of course be rare. The employment of the joiner is that selected by J. J. Rousseau, in his fanciful system of education for Emile, as offering more advantages and fewer evils than any other.

Cabinet Makers have great and varied muscular exercise, and their shops, in general, are sufficiently well ventilated; but they are commonly intemperate, and are exposed to the dust arising from the mahogany and other heavy woods which they employ. This dust in some kinds of work is created in such quantities, that stimulating the schneiderian mem-

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brane, it causes frequent sneezing, and cough and bronchial inflammation, are finally induced; headache too is caused, and the appetite and digestion are impaired. On these accounts spiritous liquors are taken, and the pretended remedy increases the evil for which it was administered.

In the city, Cabinet Makers are generally short-lived, rarely living beyond 50 years; that this does not depend upon their employment, is evident from the fact that in the country they frequently attain a great age.

Coopers have sufficient exercise, and are not subject to dust, or other noxious agents. The nature of their work, causes them to stoop a great deal, and this in those unaccustomed to it induces pain in the back. The employment is healthy.

Carmen are in general a healthy, stout set of men. They are much exposed in the open air, but do not appear to suffer in consequence. From their occasional great muscular exertions, the heavy weights they have to lift, etc., they are subject to hernia. In the city of New-York, the carmen in general are not so stout, in appearance, as they otherwise would be, because it being an employment to which it is not necessary to serve an apprenticeship in order to obtain a knowledge of it, many undertake it only when their health has been broken down by other occupations.

The Night Watchmen of our city are generally mechanics, and others engaged in laboring occupations during the day, and who in addition enlist in the city watch. They are upon duty every other night, alternately two hours at a time.—They are exposed of course to the night air in all seasons, and in all weathers, yet in general without injury. Many of them are intemperate, and they suffer more from this cause than from any other. I have heard of an instance of a watchman continuing on duty forty years without missing a night. This of course is a rare instance; generally, as they become advanced in years, the men find themselves unable to bear the double fatigue of working during the day, and of watching at night. It is worthy of consideration, whether it would

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not be better for the men when on duty, to remain out one half the night, and then to have the other half unbroken, rather than, as at present, to be on duty alternately two hours at a time. They are scarce more than able to fall soundly asleep, than they are disturbed to resume their rounds.

Painters are in the habit of constantly employing a mineral which has long been known for its poisonous qualities, and it is to this that the peculiarities of their complaints are owing. They are in general sallow and unhealthy in their appearance, and subject to nervous and gastric diseases. The branch of their occupation, which is regarded as the most dangerous, is painting what is called the "dead white." This consists of white lead, (carbonas plumbi) mixed up with spirits of turpentine. The color dries rapidly, and since if any portion of the work becomes dry before the part contiguous to it is painted, the whole has a streaked and uneven appearance, it is necessary when laying on the color to finish it as quickly as possible. The turpentine is rapidly volatilized, carrying with it a minute portion of the mineral coloring matter, and the atmosphere being confined, becomes loaded with these deleterious ingredients. The workmen are soon sensible of its influence,—they are affected with dizziness and head-ache, and often with nausea and vomiting. These symptoms, as is observed by Thackrah, seem to be caused by the spirits of turpentine, and are analagous to intoxication from alcoholic liquors. The effects of the lead upon the system afterwards become sensible, and many of the worst cases of Painter's colic are thus induced. The men seldom work for any length of time at this department of the business, alternating it with others that are comparatively innoxious.

The opinion is general that the stomach is, in a majority of cases, the organ by which the poison is introduced into the system, and when we reflect how readily, from want of cleanliness, minute portions of lead may become mixed with the food and swallowed, we can easily conceive this to be the case. The poison sometimes, no doubt, enters likewise by means of the skin. Dr. Stokes of Dublin observes that con-

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valescents, after having left the hospital, frequently had relapses, which, as they had been subjected to no new exposure, he attributes to their resuming the former dresses saturated with paint.

Next to colic, the most frequent disease of painters is palsy. This, as is well known, affects the muscles of motion, rather than those of sensation, of the upper in preference to those of the lower extremities. The muscles of the right fore-arm are those generally paralysed, and it is remarkable that the extensors alone are often affected. While the patient is unable to extend his hand, he will grasp any thing placed within his fingers with considerable firmness. Convulsions, the most severe, are likewise the rarest complaint produced by the absorption of lead. Dr. M'Donnell, of the New-York Lunatic Asylum, has met with several cases of insanity which he attributes to the same cause.

Painters have an opinion that linseed oil, taken in large doses, prevents the action of lead upon the system; by acting upon the bowels it may indeed retard or prevent the occurrence of colic, otherwise it is probably without influence. This class of workmen is generally very intemperate, and the depressing effects of alcohol upon the system at large, and particularly upon the nervous system, render them much more obnoxious to the influence of the poison.

Professional men in general are removed from absolute want. Muscular labor in them gives place to labor of the brain, and too frequently the intellect is cultivated to the neglect and injury of the body. Diseases of the brain are in consequence more frequent among them than among the laboring population, and apoplexy and paralysis in many instances take the place of fevers and inflammatory affections. In all countries, those who are in comfortable and affluent circumstances, live longer on an average than the laboring population; and our own forms no exception. A purer atmosphere, a better regulated diet, freedom from the anxieties and wants of absolute poverty, and an immunity from nox-

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ious agents, and excessive or too long continued exertion, all contribute to this result. Professional men, then, live longer than laborers or mechanics. We have not the means of instituting a comparison between them and agriculturalists, though from the superior advantages which these latter enjoy in the United States, the comparison, in all probability, would not be much if at all to the advantage of the more liberal profession. Though resembling each other in many respects, the learned professions differ in others, and as these differences have an important bearing upon the diseases and longevity of their cultivators, it is necessary therefore to consider them separately.

Of all professional men the Clergy are most favorably situated. With a profession which inculcates and enforces serenity of mind and equability of temper, which demands temperance and regularity of habits, which is always honored, and in general well rewarded, we would expect them to be healthy and long lived. This is found to be the case. Of four hundred and seventeen clergymen whose names are recorded in Allen's American Biographical Dictionary, the average life was 65.7 years.* Of these there died

1	between	100	and	110
13	"	90	"	100
66	"	80	"	90
123	"	70	"	80
84	"	60	"	70
53	"	50	"	60
43	"	40	"	50
25	"	30	"	40
9	"	20	"	30

When we recollect that in the United States, clergymen

* Since to have published a sermon, to have left a donation to some charitable or religious institution, to have been the pastor of a particular church, to have been eminent for piety or success in the ministry, or even to have had a father who is eminent in the same calling, is sufficient to entitle a man to mention in the dictionary, the results which are given above, may I think, be depended upon as exhibiting a fair view of the profession throughout the Union—at all events in the middle and northern states.

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commence life very young, generally from 21 to 25 years of age, that a number of those who died young fell victims to fevers in southern and unhealthy portions of the Union, and that several who were cut off by phthisis in early life, were beyond a doubt predisposed to the disease when they entered upon their profession, the average life must be allowed to be very great. This will be more readily admitted when we compare the results with those obtained by Dr. Lombard at Geneva. The average life of 53 protestant clergymen is given as 63.8, and we must recollect that Dr. L. excluded all those from his calculation who had not attained 30 years of age. Out of 1000 clergymen, Dr. Casper of Berlin, calculated that but 70 live to between 82 and 93 years of age;* while out of four hundred and seventeen we have sixty-six dying between 80 and 90.

Dr. Rush was of opinion that removal to a foreign country, after a man had reached maturity, whether it was from Europe to America or from America to Europe, increased the chances of reaching old age, and this opinion seems to be borne out by the observations I have made concerning clergymen and medical men. Of the four hundred and seventeen clergymen, seventy-six were foreigners, and the average of their lives was 67 6 years; while the average of the native clergymen was but 65.3. This result is the more remarkable, when we recollect that many of the clergymen coming over when the country was still wild and unsettled, partook in all the hardships of the pilgrim fathers.†

* British and Foreign Medical Review, for April 1836.

† In Allen, the names of fourteen individuals are recorded who passed one hundred and ten years of age, and of these, six were natives of the British Isles; the birth places of four are not mentioned, and four were born in the United States. One whose birth place is not noticed, reached one hundred and thirty-six years. Another, nativity likewise unknown, reached one hundred and thirty-five. Two reached one hundred and thirty-four years, of whom one was a native of England, the other of Pennsylvania. One died at one hundred and twenty-four years, a native of Ireland. Three reached one hundred and sixteen years, one of whom was born in England, the nativity of the other two is unknown. One born in England

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Of the whole four hundred and seventeen deaths, the diseases which proved fatal are mentioned only in thirty instances. Of these, six died of apoplexy, and the average duration of their lives was 52.66. Eight died of paralysis, whose lives averaged 63.25 years, four of phthisis, whose lives averaged 44.75, and six whose average age was forty years, died of fever. Of the remaining four, one was drowned, one died of diseased spine, one of dysentery, and one of inflammation of the bowels.

Though the average life of clergymen is undoubtedly great, still they are exposed to many circumstances detrimental to health. Their sedentary lives, with the occasional excessive exercise of the organs of voice, are favorable to the developement of pulmonary disease in those who are at all predisposed to it. Many of our churches are large, and constructed with very little attention to the laws of acoustics, so that the preacher must make great efforts in order to be distinctly heard. When we recollect that our clergymen preach two or three times every Sunday, besides lecturing occasionally during the week, we should not wonder if this, together with the lowered tone of the general system, occasioned by the want of active exercise, should produce disease of the vocal organs. So commonly is this the case, that a chronic inflammation of the larynx, has received the name of the clergyman's disease. Lecturing too in crowded and ill-ventilated rooms must be attended with consequences deleterious to health, and the same want of sufficient ventilation, with the exertion and excitement attendant upon protracted meetings, renders them still more injurious.

The greatest benefit would result, if some system of active and regular exercise were introduced among the students

died at one hundred and twenty; one in Scotland at one hundred and fifteen; two reached one hundred and fourteen years, one born in New-Hampshire, the other in Virginia; one born in New-Hampshire, attained one hundred and twelve years, and the remaining one who died at one hundred and ten was a native of Ireland. In the last number of the American Almanac (1837) a woman is mentioned who reached one hundred and fifty four years, and was a native of Germany.

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of our theological seminaries. The student who has been brought up to make little muscular effort, will not commence when he has entered upon the exercise of a dignified and responsible profession, but if accustomed to it from his youth, the very feelings of high and vigorous health which it occasions, independently of the obvious benefit derived from it, would induce him to continue its employment. The cultivation of such branches of the natural sciences as will lead their followers abroad into the open air, seems to be peculiarly adapted to theological students; enlarging their minds, affording abundant examples and illustrations of the goodness of that Being to whose service they have dedicated themselves, and at the same time giving them that strength of body and ability of endurance, which will best enable them effectually to serve him. If to these pursuits such means were added as are more particularly adapted to strengthen the respiratory organs, such as walking up hill, the cultivation of vocal music, and regular daily exercise of the voice in reading aloud or recitation, many a young man full of zeal and promise, who is now prematurely cut off, would be saved for the solace of his friends and the benefit of the public.

An opinion very generally prevails, that the clergy are by no means so long-lived now as they were formerly. Doubtless the increased religious excitement which has prevailed of late years, the numerous revivals, protracted meetings, etc. to which it has given rise, and the greater exertions, both bodily and mental, required of the clergy, on these accounts, may have had some effect in deteriorating their health; but the operation of these causes is but partial, and they can not certainly yet have diminished the average longevity of clergymen in any very considerable degree.

Physicians lead a more active life than ministers; they take more exercise, and in the kind of exercise itself there is *nothing* injurious, but it is often hurtful by its excess. At particular times the rest of the popular physician is broken

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in upon, his body and mind are both fatigued, and he has not time sufficient allowed him for the repose of either. This is apt to happen in seasons of epidemic disease, when fatigue or exhaustion, however produced, render one peculiarly liable to be attacked by the prevailing disorder. Thus at such times physicians generally suffer more than others of the wealthier classes. From the nature of their duties likewise, they are liable to contagious disorders; and the weight of responsibility which often devolves upon them, and the solicitude they naturally feel regarding the safety of their patients, must occasionally have an unfavorable influence upon their health. From these circumstances, physicians are not so long lived as clergymen. The average longevity of one hundred and forty-five physicians whose ages are given in "Thatcher's American Medical Biography," was 62.8 years. Of the whole number there died,

3	between	90	and	100
25	"	80	"	90
31	"	70	"	80
30	"	60	"	70
21	"	50	"	60
18	"	40	"	50
15	"	30	"	40
2	"	20	"	30

In sixty instances the disease which proved fatal is mentioned. Five died of apoplexy, whose average life was 56.6; six whose lives averaged 69.66 died of paralysis; ten whose lives averaged 38.6 died of phthisis; sixteen died of fever, their lives averaging 46.4; four of dropsy, whose average age was 69.75; eight of inflammatory affections, their lives averaging 59.375; four whose lives averaged 59 years died of affections of the heart; five died of various accidents, at the average age of 54.2; one is recorded to have died of old age, and one of the treatment which he himself instituted for the cure of a complaint under which he labored.

Though the numbers entering into the calculation are too

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small for us to place much dependance on any reasoning which may be founded upon them, we cannot but observe, that in fever, the result corresponds with what might be rationally expected. While of the clergymen, but one-fifth of the whole number of recorded deaths were occasioned by fever, that disease destroyed better than one-fourth of the physicians.

The observation which was made in treating of clergymen, concerning the superior longevity of those who had removed from a foreign land, over the natives of the soil, holds equally true with regard to physicians. Indeed the difference is much more striking, though from the smallness of the numbers employed, part of it is undoubtedly owing to accident. Of the 145 physicians, 11 were Europeans, and their average life was 72.36, while the average life of those born in this country, is but 62.02.

It will be seen that the life of the clergyman is on an average 2.9 years longer than that of the physician. Assuming that more extended researches will not contradict this statement, we must account for the difference by the causes mentioned above: the greater liability of the physician to epidemic and contagious disease, and occasionally the more anxious and fatiguing nature of his duties. The serenity of mind which religion inculcates is probably not without some effect; and the superior temperance of the clergy must likewise have a favorable influence upon their health: in this last respect however, there is now much less difference than formerly between the two professions.

According to Dr. Lombard the average longevity of the practitioners of medicine at Geneva was 57.8, * five years less than that deduced from our observations.†

* The average life of 18 physicians was 66.81, and that of 41 surgeons was 54 years. From these numbers the mean age of the whole 59 practitioners may be deduced, which will be found as above stated.

† Dr. L. further observes, that out of 100 deaths, 42 clergymen and 33 medical men passed 70 years, while from the above data, out of a similar number of deaths, 50 clergymen and 40 physicians would have passed the

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There is one source of disease almost peculiar to the medical man which has not been touched on—the danger arising from wounds received in dissection. Though frequently productive of disagreeable consequences, I have heard of but one death in this city (New-York) arising from this source, that of a medical student.

Another case however lately occurred in which a dissecting wound aggravated, if it did not produce, the disease, which cut off a promising young man, just as he was about to enter upon the active duties of his profession. The gentleman was the son of healthy parents, stout, well made, and apparently in perfect health, with the exception of a slight cough, under which he had labored for a few weeks, which he attributed to exposure, and for which he was taking some slight remedy. In returning from making a post-mortem examination, carrying the instruments which he had used with him, he slipped, and received a slight wound on the palmar surface of one of his fingers from an unclean knife. This I think was in the afternoon. At the time he gave the matter but very little attention, but during the evening he was seized with agonizing pains in the fingers, extending up the arm. So severe were the pains, that though he took large doses of the solution of sulphate of morphine, they scarcely produced any alleviation of his sufferings. The next morning red lines were discovered running up the arm, and the limb was somewhat swollen. A number of leeches were applied to the hand and fore-arm, and the member was afterwards enveloped in a warm poultice. These measures afforded but trifling relief. He continued taking large doses of morphine, to relieve the pain which he suffered. Matter formed in the

same term. This difference it may be imagined was owing to Dr. Lombard's observations being taken from the mass of the profession, while those in the text are drawn from biographical accounts. The objection as relates to clergymen has already been noticed; as regards Thatcher's Dictionary, the subjects of most of his memoirs (collected as they are from medical journals, reviews, &c.) have so little claim to general reputation that they may be looked upon as representing the profession at large. If any allowance should be made, it is probably more than counterbalanced by the earlier age at which physicians commence practice in the United States.

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course of the tendon, and an opening being made, a piece of the tendon itself was discharged. After a long time the wound healed, though a trifling scratch which he had upon the extremity of the same finger had taken a diseased action, and formed a small deep ulcer, which continued open till the day of his death. The healing of the wound left him pale, thin, and with cough. In despite the use of the various remedies which his own knowledge, or the advice of his friends led him to employ, the cough continued and increased; he became emaciated to the last degree, and resorting to Madeira, in hopes that change of climate might afford him some relief, he there died, in less than a year after the occurrence of the accident.

The professors in our colleges are subject to no very onerous duties, and the evils arising from a sedentary life are the principal ones they have to contend with. Many of them are clergymen, and they often combine the duties of the ministry with their more peculiar ones as teachers. Of 74 professors and teachers of schools, whose names are mentioned in Allen, the average life was 61 years. Of these there died

2	between	90	and	100,
3	"	80	"	90,
20	"	70	"	80,
19	"	60	"	70,
14	"	50	"	60,
11	"	40	"	50,
2	"	30	"	40,
3	"	20	"	30.

By this it would seem that the average life of the professors is less than that of clergymen by 4.6. There is nothing in the nature of the duties which they perform to account for the difference; on the contrary, since professors in general enter upon their office only when they have reached mature age, we would expect the difference, if any, to be in their favor. It probably is in great part the effect of accident, the number of professors not being sufficiently great to form an average which can be depended upon. This is rendered

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more likely by the fact, that while of the 417 clergymen, only 9 died between 20 and 30, not quite 1-46 of the whole number; of the 74 professors, few comparatively of whom enter upon their duties so young as 30, three died between those two periods, or better than 1-25 of the whole number.

In the United States, the law is not divided as in Great Britain into distinct branches, each of which is pursued to the exclusion of the other. The lawyer generally commences life in the lower grades of his profession, and only as he becomes distinguished devotes himself to the higher departments. To become eminent requires close and assiduous application, and the practice which eminence produces calls for continued and strenuous efforts. The diseases of the lawyer are those of the student—affections arising from too little exercise of the body and too great exertion of the mind. Dyspepsia and nervous affections are common. Apoplexy and paralysis are likewise prevalent, and instances of eminent lawyers being seized with the apoplectic attack while engaged in causes which demanded extraordinary exertion, have been by no means unfrequent. Lawyers engage more frequently than any other class of the community in political affairs, but anxieties and excitement consequent on party-strife do not seem to have any unfavorable influence upon health, at least upon longevity. Very many instances are commonly known of those who have passed a great part of their life in political struggles who have attained great age,* and the deaths of those who have died young, have depended upon other causes than those of political warfare. I am aware that in one or two instances disappointed hope and the envy-

* The different effects which political disappointment has in despotic and in liberal governments, upon the longevity of public men, would form a curious and interesting subject of investigation. The balance would, I have no doubt, be very much in favor of liberal governments, and for a very obvious reason; the man of talents and ambition who loses the favor of the rulers in an arbitrary government, has to reconcile himself to his misfortunes, or to remain with broken hopes and a tantalizing desire of power which he can no longer expect to obtain. In a liberal government, he hopes that some new revolution may throw his party again into power, and he directs his energies to its promotion.

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omed accusations of an unprincipled press, have been accused as the cause of the death of distinguished politicians; yet these instances are in themselves doubtful, and at all events form a rare exception.

The average age of 59 lawyers, taken from Allen's Dictionary, is 66.01. Of the 59, there died

1	between	90	and	100
10	"	80	"	90
14	"	70	"	80
16	"	60	"	70
10	"	50	"	60
4	"	40	"	50
3	"	30	"	40
1	"	20	"	30

It must be borne in mind, that of the 59, several held high official stations under the general and state governments, and others were more eminent as statesmen than as lawyers. Probably the average is too high; at all events it is right to observe, that it cannot be depended upon with as much confidence as that of the clergymen and physicians. Allen, himself a clergyman, has recorded the names and ages (and in many cases nothing more) of his brethren with commendable zeal, and Thatcher has transferred to the pages of his Medical Biography, numerous obituary notices, taken from medical journals, of men whose only claim to notice consisted in their having published a paper or performed some capital operation. But the lawyers have not met with equal attention; only the more distinguished have been mentioned, and as it requires time to rise to eminence, probably there is an undue number of those who have reached to advanced age.

In the United States, with the exception of the professors in our colleges, there is no class of men who devote themselves wholly to the pursuits of literature. There is no class that corresponds with that body of literary men, that exists in Great Britain and on the continent of Europe; but the diseases and longevity of literary men are perhaps more uniform in different countries than those of any other portion of

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the community, and what observation teaches respecting them in one country, may be safely expected to hold true in another. Their complaints have been discussed by physicians oftener than those of any other class, and with a querulousness and egotism which largely enters into our nature, authors themselves have intruded their distresses upon the public. The sedentary habits of the studious give rise to the majority of their ailments. Study and thought are proverbially unfavorable to the activity of the body, and the pale countenances of the votaries of the muses attest the nature of their occupations. The constant employment of the brain perhaps aggravates the effects arising from want of exercise, and congestion of the abdominal organs, and derangement of the digestive functions, are the consequence.

From disuse the muscles become weak, and when this is the case the nervous system assumes an undue preponderance: thus literary men are often agitated and distressed by occurrences which would not disturb their more robust neighbor. The action of the brain unlike that of the voluntary muscles, is not entirely under the control of the will; we may stimulate it to exertion, but when reason and imagination have once been awakened, they cannot always be stayed in their course by the command of the individual. The thoughts and studies which constitute the enjoyment of the waking moments of the literary man, often prevent his repose and render it disturbed and broken. The want of sleep increases his other complaints, and these in turn react and increase his restlessness. The brain, over stimulated and over tasked, becomes liable to disease; apoplexy and palsy too often put an end to habits beneficial to mankind, and injurious only to their possessor. Men of quick sensibilities and active imagination are more liable to insanity than those of duller and less excitable temperament; the pursuits of literature tend to exalt these qualities and its followers are generally taken from persons possessing them. It is not wonderful then if disappointed hopes or an overexcited imagination should sometimes conduct the student to the mad-house, but that there is

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any thing in the nature of literary pursuits themselves calculated to produce such an effect, independent of the natural disposition of its followers, is not probable; on the contrary, persons of such dispositions would generally find more in the pursuits and passions of ordinary life to develope their morbid tendencies, than in the quiet and seclusion of study.

Hypochondriasis is another of the complaints commonly ascribed to the learned. Inasmuch as it is a disease often induced by a sedentary and secluded life, the charge is just, but the literary man is only liable to it in common with all who neglect the exercise of the body. Often indeed when it is fully formed, study forms the surest refuge against that despair which threatens to overwhelm all the faculties. Cowper, *in composing* the "Task," was for a time relieved from the terrors by which he was haunted, and Alfieri in the intervals of his literary pursuits, was plunged into a morbid melancholy for which he could assign no cause.*

That intense thought when long continued is sometimes productive of the most disastrous consequences is well known. The instance of Boerhaave † has often been quoted, and the work of Tissot (Sur la sante des Gens des Lettres) abounds with examples of the same kind. An eminent practitioner

* Alfieri says in his life, "In the meah time I lived wholly unknown to myself; I did not believe that I had capacity for any thing in the world, having no decided impulse except a disposition to constant melancholy, finding neither peace nor rest, and ignorant of what I myself desired." Something however more than mere literary employment was necessary to his happiness. He proceeds—"My unhappiness proceeded only from the want, nay the absolute necessity, of having at the same time my heart occupied by a worthy love and my mind by some noble labor; and whenever one of these two things was wanting, I remained incapable of the other, and satiated and miserable beyond expression." Vita di Vittorio Alfieri, p. 78.

† Boerhaave says, "that having imprudently given way to thinking on a very serious matter, from the morning early till the setting of the sun, of a long summer's day, he did not once close his eyes, day or night, for six weeks after; during which time he was perfectly indifferent to every thing, and nothing whatever affected him. This state was succeeded by pain all over the body; a sign that the animal spirits which were now recruited, were returning into their wonted channels, and again diffusing themselves over every part of the body." Prælectiones Academicæ.

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once mentioned a case which had occurred in his practice of the evil effects of intense application. A gentleman remarkable for his enthusiastic turn of mind became absorbed in the study of some theological subject on which he was writing a pamphlet. So close was his application for two weeks that he seldom rosé from his chair, took but the smallest quantity of food in the whole time, slept but a few hours. During this period he never had an evacuation from his bowels. So great a degree of exhaustion succeeded as to leave him quite prostrate, and an illness followed which for some time threatened his life.

In delicate frames and physical habits, intense study frequently induces or hastens the approach of fatal disease. Many are the victims who are recorded to have thus fallen in the annals of literature. The English public will long regret the premature death of Henry Kirke White, who died the martyr to studies which he fondly hoped were leading him to distinction. Bayle perished of consumption in the midst of unremitting and assiduous application, and the death of Schiller was hastened if not caused by the same devotion to literary employment. In delicate and over-sensitive minds the anxiety of authorship and the despondency attendant upon want of success, may act with fearful energy upon the body. Collins was thus driven to temporary insanity, and the death of Keats, already certain, is said to have been hastened by a criticism.

But however unfavorable their habits may be to a few, as a body, literary men are long-lived; though they may not enjoy full health, their ailments are of such a character as to take away very little from the term of natural existence. A late writer * from a series of tables which he has constructed, has deduced the conclusion that those employments in which the imagination enters are less favorable to longevity than others in which the reasoning faculties alone are engaged. Though Dr. Madden's tables are open to animadversion, yet it is a fact that poets have not attained the same average longevity as natural philosophers; but this does not depend upon any unfavorable influence upon health caused by the exercise of the

* Dr. Madden, on the infirmities of Genius.

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imagination, but rather on accessory circumstances not necessarily connected with it. Unremitting application is necessary to success in the paths of science. The searcher into the secrets of nature, cannot prosecute his enquiries for a few days or weeks and then neglect them for months until inclination prompts him to resume them. Nature will not thus be won; she requires long years of patient and constant assiduity. Now, these cannot be given without regularity of habits, and a certain mediocrity of fortune. The poet is far differently situated. He contains within himself all the materials necessary for the prosecution of his art; no depth of poverty can prevent its exercise, and even a degree of physical disease incompatible with the successful prosecution of philosophical studies, may occasionally admit the pursuit of, to its followers, the most enchanting and care-relieving of all arts. Thus Otway, who is said to have died of want, and Chatterton, who perhaps killed himself to prevent a similar death, cannot certainly be considered as fair instances of the unfavorable tendancy upon health produced by the employment of the imagination.

Another circumstance which has an unfavorable effect upon the health of poets, is the conviviality of their habits. Brought forward in society from the popularity of their art, they too often acquire propensities abundantly sufficient to account for premature decay and death. The philosopher on the contrary is removed from temptation, while the habit, if indulged in, would prevent his ever reaching distinction. We thus see that there are circumstances which may account for the shortness of the lives of poets, without invoking the unfavorable influence of the imagination for that purpose. It must be acknowledged however, that the constant exercise of that faculty, may generate a morbid sensibility, injurious alike to the health and happiness of their possessor.†

An opinion is prevalent, and it has received the sanction of high medical authority, * that a vigorous state of health is in-

*Dr. James Johnson. See treatise on "Diseases of Tropical Climates."

† The various circumstances which determine the longevity of literary

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compatible with the highest exercise of the mental powers. This opinion is probably founded on the inactivity which thought or mental exertion of any kind produces when intense. But if actual disease of the body almost always impairs the activity of the mind, must not langour or debility produce the same effect though in a less degree. The anecdotes of Dryden and Franklin are well known, and the only effect their medicine or regimen could produce, must have been a superior degree of health. Besides, many of the greatest geniuses have been fond of active sports and exercises incompatible with any feeling of debility. Milton, we are told, was vigorous and active and an adept in the use of the sword, and Tasso was so skilful at the same weapon, as singly to defend himself against two opponents; nor, if we trust anecdote, could the youthful sports of Shakespear have had any tendency to produce that state of health most favorable to the exertion of his genius. It is worthy of remark too that ancient Greece, in which the regimen adopted towards children was so severe, as in general to cut off the weakly and delicate, and in which the greatest attention was paid to the cultivation of the physical powers, produced such a number of great men as has never been equalled

men, form a curious subject of investigation. Dr. Rush in his "Inquiry into the causes of animal life," observes that in the course of an extensive series of inquiries directed to the subject, he had found in almost every instance, that those who attained advanced age possessed either violent passions, or an active understanding; when they were both united they soon consumed the flame of life. However this may be, it is certain that an irritable or morbidly sensitive temper, is unfavorable to health and longevity, while a serene and equable one is eminently conducive to both. Compare for instance the longevity of Fontenelle and Metastasio with that of Smollet and J. J. Rousseau. Despondency and want of success will likewise tend to shorten life, while hope and self confidence will prolong it. In this point of view, egotism, which is sometimes the attendant upon genius and sometimes the solace of ambitious mediocrity, is exceedingly favorable to health, and doubtless the life of many an unfortunate author has been prolonged by his confidence, that in time the public could not fail to appreciate his merits. In short it will be found that those circumstances, whether wealth or success, or temper, which promote happiness, will tend to prolong life; and on the other hand those which are unfavorable to it, will in an equal degree tend to shorten the average term of existence; while the employment of any of the faculties, whether it be reason, or memory, or imagination, so long as it is not so excessive as to prevent physical exercise, conducive as it always is to intellectual pleasure, will be likewise conducive to longevity.

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by any country in so short a period, and their literary men too were remarkable for their longevity.

In reviewing the various employments by which man obtains his bread by the sweat of his brow, we are struck by the fact that various as is their nature, there is nothing in the great majority of them which is not compatible with health and longevity. With the exception of a few occupations in which the operative is exposed to the inhalation which mechanically irritates the lungs, and a few others in which he suffers from the poisonous nature of the materials which he works in, his complaints arise from causes which might be obviated. It is inattention, ignorance or bad habits on his part, or a rate of wages so low as to leave him time insufficient for repose or recreation, or finally the faulty construction of his dwelling or his workshop, that produce the majority of his ailments. Hereditary disease, or tendency to disease, gives new force to these causes, and as the progeny of weakly parents are themselves weakly, they acquire strength with every generation. While we can readily discover the general cause of ill health, it is difficult if not impossible to determine how much of the effect is owing to each one of them. The machine upon which they act is so complicated, and the causes themselves are so complicated, that we must be content with announcing the principal ones without endeavouring to discover which has the greatest agency.

The necessity of pure air and of a perfect ventilation of dwellings and workshops, has already been so often insisted on, and indeed is so generally acknowledged, that it may be thought superogatory to mention it again; yet the importance of the subject is so great that I could not avoid recurring to it. In our towns, the evil is a growing one; every year adds to its magnitude, and unless something be done to check its progress, our city will ere long present examples of disease and deformity which hitherto could only be found in the overgrown towns of Europe. Children are less able to bear hardships and privations of any kind than adults, and confined as

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they are to the house in early life, it is on them that the privation of pure air and of the light of the sun acts with the greatest force. Children born of apparently healthy parents, now frequently present themselves at our dispensaries affected with scrofulous complaints, and rickets, a disease formerly almost unknown among us, is no longer a curiosity. In past times, the professor of midwifery in one of our institutions, was accustomed to observe that the specimens of deformed pelvis which he exhibited to the class, were imported from abroad; our own country produced no such cases of extraordinary disease. If the present state of things continues and increases, as without some remedy it certainly will, New-York herself will soon be able to supply the museums of our colleges. But scrofula is not the only complaint caused by the manner in which the poorer classes live in narrow alleys and cellars under ground. Fevers are produced or aggravated, contagious disorders spread rapidly and with fatal effects; headache, dyspeptic affections, and a general air and feeling of ill-health are rendered common, and it is in a great measure to this cause, I am persuaded, that the fearful mortality of the children of the poor, and the early death of the parents, are to be attributed.

Intemperance is an evil of wider influence. While the effects of foul air, at least in its more concentrated forms, are confined to laborers, this affects our mechanics generally. By intemperance, I mean the too frequent indulgence in the use of ardent spirits; taken occasionally, they seldom can be productive of any benefit—constantly indulged in, they are always injurious. An idea is generally prevalent, that by their use a man can labor longer and harder than he can without it, and despite of all that has been done of late years to expose the fallacy of the opinion, it is still persisted in, either as an excuse or from conviction. But this subject has already been brought fully before the public, and the better classes are sufficiently convinced of its importance. It remains only to say a few words on a subject that is not so generally insisted on. The abuse of ardent spirits is frequently productive

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of tuberculous disease, and even where the health of the parent is not so much affected as to render him consumptive, his children are liable to the complaint.

A certain degree of muscular exercise is necessary to health; without it the circulation is feeble, partial congestions are formed, digestion is impaired, the nervous system becomes affected, and the general economy languishes. In some occupations, a few only of the muscles are employed, while the rest of the system is inactive. In most of these trades, to evils arising from want of exercise, are added others caused by a bad position. The spine is curved, the abdomen is compressed, the head bowed forward, and free respiration hindered. Such is the position of the tailor, shoemaker, seamstress, engraver, &c. The evils arising from this state of things, could readily be prevented by the artizan himself, if during his leisure hours he would early commence taking exercise and regularly persevere in it. Unfortunately, he too often becomes aware of the necessity of exertion only when he is deprived of the ability or inclination to exert himself, and he then has recourse to quack remedies for a renovation of that health which can only be restored by a change of habits. But want of exercise, though destructive to full health, is not, in healthy constitutions, incompatible with longevity. In the case of artizans, it is combined with a deteriorated atmosphere, intemperate habits, and occasional exposure; and it is this combination that produces fatal disease and premature death. Engravers are less intemperate than other artizans, and from their ampler wages are enabled to reside in larger and more comfortable apartments; they are consequently longer lived, and I am convinced that the longevity of literary men is owing in no slight degree to their breathing a purer air, and to the greater abstemiousness of their habits. When there is any tendency to tuberculous disease, then all sedentary employments are to be avoided, and such should be chosen as require moderate but active exercise in the open air. The employments of the

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surveyor and of the civil engineer, are most favorable for the wealthier classes, and those of the butcher, the stage-driver, and the occupations of the tan-yard, for those in humbler circumstances.

In female schools, the injurious effects arising from want of exercise, show themselves in their greatest deformity. The general increase of intelligence in the community, and the prevalent rage for "accomplishments," require that girls shall now receive an education superior to that of their mothers, or at least that they shall acquire a smattering of a greater variety of branches of learning. While the task is thus increased, the time for its acquisition remains the same, and consequently the hours required for the developement and strengthening of the body, are devoted to the acquisition of knowledge, which if ever so useful is dearly purchased by the sacrifice of health. In fashionable boarding schools, the evil is still greater; for the few hours which, when passed at home, nature will sometimes snatch from the task-master, if not given to study or some sedentary occupation, must flow by in listlessness. The short and formal walk, which however unworthy the name, is dignified by the title of exercise, inefficient in itself, is rendered still more so by the mechanical manner in which it is taken, reminding us rather of a funeral procession, than of the gay and joyous deportment of young girls temporarily released from the shackles of school discipline. The pale faces, the meagre forms, and the curved spines of the girls, show the result of the system. With their constitutions thus broken, they are often taken at once from school into society, and joyous at their escape, plunge into the late hours and injurious frivolities of fashionable life. What wonder if, when prematurely married, supposing they are not cut off before, their progeny is sickly and short-lived; what wonder should they themselves fail early under the cares and fatigues of maternal duty.

The population of the United States is beyond that of

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other countries, an anxious one. All classes are either striving after wealth, or endeavoring to keep up its appearance. From the principle of imitation which is implanted in all of us, sharpened perhaps by the existing equality of conditions, the poor follow as closely as they are able the habits and manner of living of the rich. From the lower prices of provisions, and from the cheaper rates of house rent, families could formerly be supported much more comfortably and abundantly, on the same means, than they can be at present; and the artizan compares the ease which he formerly enjoyed with his present condition. Every one has seen immense fortunes made in a short time by successful speculation, and a rage for such speculation has infected all classes of the community. From these causes, and perhaps from the nature of our political institutions, and the effects arising from them, we are an anxious, care-worn people. Now, however favorable this may be to our industry and enterprize, it cannot but be deleterious to health. How far these injurious effects may extend, it is impossible to determine; but we may observe that when causes act thus generally, however trifling their consequences may seem with respect to individuals, when they regard the mass, they cannot fail to be very considerable; and when we reflect that in all probability every deterioration of the general health of the parents is transmitted to their offspring, the subject becomes one of great importance. For my own part I have little doubt that the pale and unhealthy appearance of our population, is in a measure owing to the very causes which have contributed to the rapid rise and unexampled prosperity of our country.*

* In conversation, an intelligent foreigner remarking on the round shoulders and curved spines of our countrymen, observed that "he had no doubt they depended on the form of our government!" One is inclined to smile at the expression, yet viewing the matter in the light we have done, there *may* be some truth in the observation. It is worthy of inquiry too, how far the examples of a court and of a standing army may go in producing erectness of deportment. This certainly does not depend upon strength

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This same constant attention to business gives rise to a rapid manner of despatching our meals, injurious and even destructive to the digestive powers, and this prevails not only among the poor who are compelled by the necessity of labor to devote as short a time as possible to their principal meal, but likewise among the richer classes, in whom the habit more destructive, is palliated by no such excuse. The food being swallowed half masticated, and the mind being devoted immediately afterward to the business of the day, the stomach is compelled with diminished powers, to perform an increased task. Hence we can readily account for the general prevalence of dyspepsia. Here we must revert to a position that cannot too often be insisted on. Permanent functional derangement of the stomach in the parent, is productive of scrofulous tendency in the offspring. It is to be hoped that our citizens, however they may disregard their own present convenience, will hesitate before they entail so dreadful a malady upon their offspring, and thus partially check the progress of a disease which threatens to be more fatal to our race than all other maladies combined.

From the extent of surface and from the importance of the functions which it exercises, the skin is an organ which it is of the greatest importance to preserve in a healthy condition. This healthy condition cannot be maintained without attention to cleanliness. Too many are contented with simple attention to their face and hands, and many are compelled, by the crowded state of their own dwellings, and the want of public convenience, to neglect the regular ablution of their body. Now in this very class, from their great exposure to dust and dirt of various kinds, frequent ablution of the whole surface is more necessary than in any other. The injurious consequences which follow its neglect we cannot rightly estimate, since so many other causes of ill-health are at the same time in operation, yet they doubtless must be

alone, many strong and robust men are very round shouldered, and on the contrary many, little remarkable for their physical strength, are sufficiently erect in their carriage.

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considerable. The remedy is obvious and easy; the erection of public baths, the tax for admission into which should be so light as to bring them within the reach of every person in the community.

There is an evil which has of late years become of excessive magnitude, and which is daily increasing—the consumption of quack medicines. Aided by the immense circulation of a cheap press, many of these nostrums have obtained a sale that exceeds belief. Few patients among the lower classes now apply to a physician, who have not previously aggravated their complaints by swallowing numbers of these pretended specifics, and a late resident physician of the city hospital has informed me that he has met with many cases of derangement and irritation of the mucous membrane of the stomach and bowels, caused solely by the drastic articles which enter into their composition. Formed in most instances of irritating ingredients, and directed to be taken in immense doses, and as infallible remedies in all diseases, the mischief which they do is incalculable, and unless some stop be put to the evil, by law or by an enlightened public opinion, it will soon claim an unenviable preeminence as a cause of public ill-health.*

That the present errors of the vulgar were formerly the themes of philosophers, is an old and trite observation. Most of the vague and unfounded notions of the public concerning the nature and treatment of diseases which embarras the young practitioner on his entrance into practice, were once the cherished doctrines of the wise and learned. Can we do nothing to correct the evil our predecessors have oc-

* Several cases of abortion occurring in females who were in the constant habit of taking Brandreth's pills, one of the most popular of these nostrums, have lately come under my observation. Three of these pills will ordinarily purge a stout man several times, and as they are directed to be always taken in increased doses till the disease is cured, 15, 20, or even more are sometimes taken at a time. When we reflect, that they are in many instances taken constantly, either as a preventive of disease, or for the relief of some slight ailment, perhaps the costiveness induced by the former operation of the pills themselves, we can readily conceive that in pregnant women their use may be attended with the most deleterious consequences.

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casioned? Can we not substitute truth for falsehood, facts and reasoning founded on facts, for idle notions, and injurious hypotheses? I would not wish to instruct the community in a knowledge of the symptoms and treatment of diseases,—that were impossible; but I would wish to make a knowledge of the laws and functions of the living body a necessary part of a liberal education, and to communicate to all classes, so much information as would enable them to educate their children and regulate their diet, clothing, exercise and habitations. Something of late years has been done to this end, but much very much remains to do, and professorships of physiology in our literary colleges, and popular lectures and popular books on the same subjects for all classes, would be productive of benefits widely felt and as widely acknowledged. Many of the evils incident to the occupations of civilized society would then be remedied, and others essentially alleviated. Medical men are bound to urge this matter upon the public, not only from motives of general benevolence, but of private interest; for it affords the surest means of elevating the character of the profession. Then would the public be enabled to judge of the intelligence of their medical attendants, and then, in common with the rest of the community, would the young physician feel the truth of the maxim, "knowledge is power."

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Art. VI. *Medical Topography of the* County of Tioga. *Communicated by Dr. William Bacon.*

(Read February 7, 1837.)

Ithica, Dec. 19th, 1836.

Joel A. Wing, M. D.

Dear Sir,—Having resided many years in the county of Tioga, been a member of its Medical Society since 1813, and at the time I left (two years since) being the oldest member thereof, I considered myself better qualified as it respects *time*, *local knowledge*, and *personal observation*, to write its topography, than any member of the profession residing there. I therefore send you the accompanying for the use of the State Medical Society.

Your obedient servant,

WILLIAM BACON.

This county was originally erected from Montgomery county in the year 1791. Various changes have been made in its territory since, by taking off some entire new counties, and parts of others, and by the readmission within its boundaries of territory previously disconnected. It now, by the act of 1836, consists of the towns of Richford, Berkshire, Newark, and Owego, on the east side; Candor, Tioga, and Nichols, in the centre; and Spencer and Barton on the west side. It is among the southern tier of western counties of the state, being west of the centre; and is bounded on the north by parts of Chemung, Tompkins and Cortland; east by Broome, south by the state of Pennsylvania, and west by Chemung; lying between 42° and 42° and 22' N. lat., and 0° 49 and 0° 20' E. lon. from Washington, containing about 506 square miles, or 324.000 square acres.

Face of the Country.—The county is situated on the Susquehannah river, about 150 miles (following its windings) from its head, the Otsego lake and its tributary streams. The river flows nearly across the south end in a south-westerly

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direction, making a fertile valley of about a mile in width on an average, with abrupt, sterile hills on either side, except where broken by streams running into it. Most of the county lies north of this valley, and is composed of several hills and valleys; the valleys are deep and the hills are rugged and heavily covered with timber, except occasional spots, where it is removed by the hardy yeoman; giving the whole face of the country a gloomy, sombre, and forbidding appearance, without the sublimity or grandeur of a mountainous, or the cheering aspect of a fertile champaign country.

Rivers and Morasses.—The Susqehannah, as before mentioned, passes through the south end, and the Chemung touches on the S. W. corner; both rivers are navigable for arks and rafts in the spring and fall when the water is high. The Owego, Catetant, Pipe, and Cayuta creeks, take their rise in the north part of the county, and in the adjoining counties of Tompkins and Chemung, and run nearly in a south direction, discharging their waters into the Susquehannah river, and forming the before mentioned vallies. They neither flow rapidly nor sluggishly, but there is a gradual descent of their beds of about ten feet to the mile. The Wappesena creek rises in the state of Pennsylvania, and running a northerly course falls into the Susquehannah in the town of Nichols. There is a marsh, or swamp, in the town of Spencer, of something more than a mile in diameter, which is a prolific generator of malaria, and is the only one of any importance in the county; near it are two small ponds, forming the head of the western branch of the Catetant creek. It contains no lakes or canals, neither are there any large tracts covered with water in rainy seasons.

Mountains.—The Alleghany range commences in this county, though the hills do not take the name of mountains till they are followed some 70 miles in a south-west course; the most elevated spots are in the town of Candor, several of which attain the heighth of 1450 feet above the Hudson river at Albany, and 800 feet above the Susquehannah river at Owego, as ascertained by engineers of public works. Snow

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covers these hills deeper, and lies some week or two longer than in the Susquehannah valley; the time during which they are so covered varies with the severity of the winter, and is from one to five months.

Geological Structure.—This county forms a small part of that extensive tract of transition formation situated between the Hudson river and the far west, and the granite rocks of Pennsylvania, and those of the north-eastern counties of this state and Canada. The rock on which it is based, is a slaty graywacke, with occasional compact strata; there is very little variety—you find no rocks of limestone, or marble, or gneiss, or granite, or any other kind, than graywacke, which forms the hills and covers the earth with its detached pieces, except here and there a boulder of granite or gneiss, and an occasional pebble of limestone or sand stone, or some slight indications of iron pyrites. In the bottom of one of the before mentioned ponds, in Spencer, you will find a bed of marl, from which lime is made by calcination. In the town of Tioga is a sulphurous spring, and in the S. W. corner of Barton, on the east bank of the Chemung, is another; the waters of neither have ever been analysed.

On the hills the rock is covered with a cement of clay, sand, and small stones, called in colloquial language, hard pan; this, in its turn, is covered to the depth of about one or one and a half feet with loam and vegetable mould. The vallies are of course alluvial, consisting generally of loam, (in the formation of which clay constitutes the greatest proportion,) and vegetable mould, with occasional beds of clay and sand. The valley of the Catetant differs however from the others, in being formed almost exclusively of a coarse gravel and water-worn pebbles, of all sizes, from nine inches in diameter to a particle of sand, making a porous soil and a natural M'Adamised highway. The water in the wells which penetrate the hard pan is hard, containing more or less of carbonate of lime, the use of which perhaps contributes in some degree to the production of the goitre—but more of this hereafter. The water of wells in the valleys, and in springs,

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creeks and rivers, is *generally* soft and nearly pure, though there are some exceptions.

State of Agriculture.—The valleys were originally covered with a heavy growth of very large and tall pines (pinus strobus) which is now principally removed, the sides of the hills with hemlock (pinus canadensis) and pine, and the tops some with beach (fagus ferruginea et sylvatica) and maple, (acer saccharinum,) and others with white and red oak, (quercus alba et rubra,) and chestnut (castanea vesca.) These constitute by far the greater part of the forest trees, though various other kinds of timber are interspersed among them. There are 70,000 acres of improved lands, being nearly 22 per cent., leaving wild 254,000 acres. The valleys are principally plough lands; the Susquehannah valley being well adapted to wheat; the uplands are generally used for grazing, and are well covered with the exotic grasses of Timothy (phleum pratense) and red clover (trifolium pratense) and the indiginous white and yellow clover (melilotus alba et vulgaris,) which latter spring up spontaneously wherever the forests are removed. Wheat, (triticum hybernum) rye, (secale cereale) oats, (avena sativa,) maize, (zea mays,) beans, (phaseolus vulgaris,) peas, (pisum sativum,) buckwheat, (polygonum fagopyrum,) and potatoes, (solanum tuberosum,) are grown about equal to the consumption of the inhabitants. Neat cattle, horses, sheep and swine are raised; in the north-east part of the county the former are very fine, and the sheep are excellent in all parts.

The Medical Botany—is similar to that of Tompkins county, as published in the Transactions of the Medical Society of the state of New-York, for 1836, vol. 3d, part I, excepting the following, which I believe is not found in this county. Datura stramonium—polygala senega, et scutellaria laterifolia.

Meteorological Observations.—Since the incorporation of the academy at Owego, it is presumed that tables have been kept and reported to the Regents of the University; but not having seen them I am unable to make an abstract.

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My recollection enables me to state, that the currents of air, are from the north-west to the south at least 350 days in a year, and probably 360—about two thirds of the time from the north-west. I recollect but two storms from the S. E. in 30 years, and those produced the greatest falls of snow of any storms that have occurred during that period. The first was on the 30th day of March 1807, and the last in January 1836; they both commenced with the wind in the S. E., which continued to blow from that quarter for about 24 hours, and then veered around to the N. W., and the storm continued for about 48 hours longer; the snow falling each time to the depth of 3 feet. The north-east storms so frequent on the Atlantic coast do not reach here, probably prevented by the Catskill mountains. I recollect but one, and that in November 1828, of about 24 hours continuance; commencing with rain and ending with sleet and snow. Thunder-showers frequently prevail during the summer months, always arising between west and N. W. There have been hurricanes or tornadoes occasionally. From May till late in October, on all clear mornings, all the vallies are filled with fogs, nearly to the tops of the hills; they generally commence rising about midnight, and continue till from 8 to 9 o'clock A. M. The Aurora Borealis is seen occasionally at all seasons of the year; most frequently however from the 10th of September to the 10th of November, often very brilliant, and sometimes seen during moonlight nights. I believe the atmosphere is always hazy when they appear.

Inhabitants.—The county was settled about 1790 by emigrants, principally from the states of Massachusetts and Connecticut; though many of its inhabitants came from the eastern counties of this state, and from the state of New-Jersey and Pennsylvania; and some from various other places. The population by the recent census is 17,134, being 35.8 to a square mile. In the village of Owego which contains about 1500 or 1800 persons, it is somewhat dense; though the houses are not so much clustered as to prevent a full and free ventilation; in the residue of the county it is sparse.

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The first dwellings were uniformly log houses, one story high, made by layers of logs in a quadrangular form, notched together at the ends, and the interstices filled with splinters, (technically called chinking) and clay, though not so tight as to prevent the free admission of many salubrious, though often unpleasant breezes. They are poorly lighted. The same mode of building is still continued by families who *settle* in the forests and commence the clearing and cultivation of new farms. Those who have increased in wealth, have abandoned and demolished their primitive huts, and erected wooden framed buildings of one or two stories high; some have made their houses more comfortable, and of decent appearance, by finishing them with lath, plaster and paint; others living in the shells they have erected according to the different states of their energy or resources; while some of the wealthier villagers have raised elegant brick mansions, with a refinement of taste, and purity of style, highly creditable to their owners.

The furniture keeps equal pace with the style of architecture. In the primitive hut you will find only the necessary articles of housekeeping; and generally all of those—such as feather beds, tables, chairs, chests, small mirrors, wooden clocks, and necessary cooking utensils; as you advance to better houses you will find more expensive furniture, and in addition to the foregoing will be domestic carpets, bureaus, escritoires, &c. till in the houses of the most wealthy you will see all the luxurious paraphernalia of elegant Brussels carpets, splendid sofas, pianos, astral lamps, &c. &c. common to our cities and large villages.

Houses in the village, and some of the better sort in other parts of the county, are heated with stoves in which wood is consumed, except a very few rooms in which coal is used. The others are warmed with wood from fire-places.

Most of the inhabitants are occupied in agriculture and lumbering. There is a supply of mechanics, merchants, and professional men, equal to the wants of community; but no extensive manufactories of any kind.

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Diet.—Animal food of various kinds, with vegetables, compose the morning and meridian meals of the adult population, vegetables, with tea or milk and butter, the evening; tea or coffee is universally used, generally twice a day, and undoubtedly in some they promote dyspepsia and nervous indisposition. Pork, beef, and mutton, preserved with salt, constitute the animal food chiefly consumed; except in villages, where fresh beef, veal, mutton, fish, fresh and salted, are more freely used. The vegetable food is wheat, rye, Indian corn, and buck-wheat (in their various preparations of bread, cakes, pastry and puddings) potatoes, beans, peas, sugar and garden vegetables. The diet of children does not vary from the above except in a more free use of milk, and less use of flesh. The constant use of buck-wheat cakes, generally produces a dermal affection resembling Psora. Swine which feed either on the stalk when growing, or on the seed, especially before it is fully ripe, are affected with a scabby ichorous eruption which often proves fatal to them. Cases of colic of sufficient severity to require medical advice often arise from a too free use of beans and peas.

Morals and Education.—Persons from different states and countries, whose customs, habits, occupation and modes of living are different, congregated together in a social state, are mutually improved by the amalgamation; a free intercourse and practical acquaintance with the representatives of so many countries, extirpate preconceived national prejudices, and sectional jealousies, while their common privations, hardships, and destitution of luxuries, and extreme difficulty of procuring even the necessaries of life, incident to the pioneers of a newly settled country, elicit cordiality of feeling, and sympathy, benevolence and hospitality, and produce an equality in the ranks of life unknown in any other state of society. Such was the primitive social state here, but the ease in access to our maritime cities through the intervention of canals and rail-roads, the free introduction of luxuries, and the acquisition of wealth, have produced a revolution: coldness of

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heart, selfishness, deceit and hypocricy, have succeeded; the arrogance of the rich is increasing in its intolerance, and the servility of the poor is becoming more abject.

The manners and customs of the land of steady habits, have in some respects gained the ascendancy; and long before legislative aid was granted for the establishment of common schools, elementary instruction was generally disseminated. The first public work after a settlement is made, is building a school-house, and the employment of a teacher; then follows the clergyman and the erection of the house of worship. There are many religious societies of various sects; among some of which, if not most, there is a tendency to enthusiasm, promoted by their frequent social meetings, and shewing itself at times by revivals, as they are termed; yet they stop short of fanaticism, and have produced few cases of insanity. This religious feeling gives a high tone to the *morality* of community. It is based on the pure principles of the christian religion, and so great a portion are governed by the precepts thereof, that the profligate and unprincipled are compelled by the force of public opinion, to refrain from those acts offensive to the taste of a christian community; or they are *cut* as unworthy members of society, and not admitted to respectable association.

The use of ardent spirits in social intercourse has become unfashionable, and is by common consent generally discontinued. Many also abstain from all fermented drinks; the use of the latter *generally* prevails; and how far the ultras in the temperance warfare will succeed in banishing them from general use, remains yet to be determined. The filthy use of tobacco, in some of its preparations, exists with two thirds of the adult male population; and among too great a proportion of—females, (ladies I had nearly said) aiding, or rather taking the precedence of tea and coffee, in the production of nervous affection.

Diseases.—The diseases most prevalent are the following, arranged in the order of the frequency of their occurrence, excepting the contagious and epidemic.

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1st. Diseases affecting the organs of nutrition.
2d. Diseases affecting the respiratory organs.
3d. Rheumatisms.
4th. Fevers.
5th. Convulsions.

The above constitute probably nine-tenths of the cases that occur in medical practice ; (except epidemics,) though almost all other diseases which "flesh is heir to" are occasionally seen. The inflammatory diseases are most frequent in the vernal and latter autumnal months; fevers and affections of the alimentary canal prevail from June till October. Some of the inhabitants within the influence of the malaria of the before mentioned swamp in Spencer, are annually affected with agues, synochus and typhus fevers, from spring till winter.

In the valley of the Catetant, where I have observed diseases for a quarter of a century, I have noted that synochal and typhus fevers have *extensively prevailed*, only in a few particular seasons ; while in some of the intermediate years there have been only an occasional case, and other entire years without a single case originating in the valley. The years, as near as I can now recollect, in which they have been more generally prevalent, are 1812, 1821, 1824, 1829, and 1834. The greatest number affected was in 1821, the cases in 1824 were the most obstinate, and the most fatal, in proportion to the number affected. Synocha, synochus and typhus mitior, have in many instances, appeared at the same time in different members of the same family. Sometimes every individual of the family has been affected with one or the other of the above diseases ; while seldom or perhaps never, have they all been affected with the same *type*. Synochus is the most predominant, with highly increased excitement in the first stages of the disease ; and typhoid symptoms in the latter, whether it have a fatal or favorable termination, though in several instances in the same house, where some have been confined with fever of the above type, and others whose fevers never degenerated into a typhoid state, a marked and regular

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case of typhus has occurred, which, during its slow accession and lingering progress, exhibited at no time, the increased action of any functions; if we except the capillaries, seen at times in the increased temperature of the skin, and dryness of the tongue, but on the contrary has shown in its progress every debilitating symptom, from simple langour to subsultus tendinum. In other families, one individual or more have been affected with fevers of one or the other of the above types, while the remainder living in the same house and often eating and sleeping in the same room, continue free from disease. I have in several instances, seen infants remain free, who have daily, and almost hourly, received nourishment from the breasts of affected mothers, for the period of from one to four weeks. In one family, in 1834, consisting of seven persons, two were affected with synochus, the typhoid symptoms appearing on about the 11th day of the disease, and continuing with great severity for some two weeks; one with the scarlatina severely, and the remainder with slight synochus, of so little severity as not to keep them in their rooms.

Whether the years in which these diseases appeared differed materially in temperature, humidity, or the direction of the winds, from other years, cannot be determined, as no table of the weather has been kept, and recollection furnishes nothing worthy of remark.

Whatever the typhus may be in Ireland and Great Britain, it is not *here* contagious; neither is it a disease, sui-generis. This disease, so accurately described by British writers, I have often seen, and watched it with carefulness and anxiety, from its incipient state, in which the sufferer pursued his usual occupations, complaining only of lassitude and debility, through the additional stages of anorexia, headache, muscular and mental prostration—accelerated circulation, laborious respiration, parched red tongue, low delirium, colliquative diarrhœa, subsultus tendinum, clammy perspiration, and glazed eye, to the closing scene of life; but I have never known three persons of the same family afflicted with it in one season, though fre-

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quently cases of synocha or synochus or both have been present. A predisposition to fever appears to be created by an atmospheric constitution, and of those who continue in health, some are not exposed to the exciting causes; and other constitutions successfully resist them; the three different types constituting but one disease, operating with different degrees of severity, upon various temperaments, idiosyncrasies, and different states of the systems of the patients.

Critical days are apparently the seventh, ninth, eleventh, and fourteenth, and they are the most common; though sometimes the disease forms a crisis as early as the third or fifth, while other cases are protracted to the twenty-first, or twenty-eighth day, and some even to a lunation and a half. Sometimes a remission takes place on the seventh or ninth day; the crisis is completed on the next succeeding critical day, and the patient becomes convalescent; at other times, on the critical day succeeding the remission, there will be an accession of typhoid symptoms, which rarely abates under two weeks thereafter.

In synocha, and during the first stage of the synochus, the curative process has generally been, bleeding, emetics, cathartics, sudorifics, cooling acidulating drinks and the antiphlogistic regimen. Upon the accession of the typhoid state, little can be done to the advantage of the patients, by the administration of general remedies: they will no longer bear depletion; and a free stimulation will soon exhaust the little sensorial power that remains. I have no confidence whatever in mercury, as a febrifuge, in its character either as an alterative or a sialagogue; as a cathartic it is unquestionably useful; but I have known in several instances, a ptyalism, induced by its use as early as the fifth day, and continued from one to two weeks, where the crisis was not formed in from four to six weeks.

In this secondary stage, to watch carefully the state of the patient, relieve local congestion by topical applications, restrain diarrhœas at almost any sacrifice, unless they are strongly marked as critical; (for death seldom occurs un-

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less preceded by a wasting diarrhœa; it is better that there be a constipation for four days than administer a cathartic; if there must be an interference of art, use enemas;) to combat any topical affection that may arise in its progress, relieve the dryness and heat of the skin by frequent sponging with warm, tepid, cool, or cold water, as is agreeable to the feelings of the patient, to sustain and support the system by mild nutritives, to prevent any unnecessary expenditure of the sensorial power, by keeping the patient in a darkened room, quiet and undisturbed, and patiently await the conflict between the invisible agent of the disease, and the inherent resisting power of animal life, has been considered by the writer, as the best practice.

In the typhus mitior, (nervous fever,) after cleansing the prima via, by an emetic or cathartic, the treatment has been similar. No critical days have been noticed in this disease.

During convalescence, fresh air, gentle exercise, amusements, nutritive diet of easy digestion, have been found the most beneficial. There is always such a high degree of irritability in the system of the convalescent, that the whole list of bitters and wine is decidedly prejudicial; and even the mild tonics, if taken in sufficient quantities to produce any effect, retard, rather than aid, returning health.

I have never seen a case of typhus gravior (putrid fever,) in the county; none I am sure, has ever occurred in the Catetant valley, and I have never heard of any case in any other part of the county.

Temperance and industry have prevented visitations of the gout. I have heard or known of but a single subject resident in the county.

The goitre is occasionally met with. I have found it in this county, in the south part of Tompkins county, in Chemung county, in this state, and in Erie county, Pennsylvania. All these places lie on the ridge of land that divides the waters that run south into the Atlantic, from those which

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run north into the lakes; they are in the region of the hard pan country, and consequently furnish hard water. It is worthy of investigation, how far hard water has an agency in producing this disease. It is stated by the late Doctor Coventry,* that many cases which occurred on the first settlement of Utica, were traced to the use of the water of Rigel's creek, which he thinks contained sulphate of alumine, —that they disappeared upon the discontinuance of the use of the water—and that many sheep that drank of it died from an enlargement of the thyroid gland. In many cases within my knowledge, the subjects were in the daily use of hard water at the time of its appearance; but I am unable to say whether in all cases. But in opposition to this supposition, there is the fact that thousands are in its use for years, whose necks are unaffected.

In three families I have known idiots, who were the children of goitred mothers. In one of them, the mother, who had the largest I ever saw, had seven children; the four oldest, who were nursed by her, were idiots; the three others, who were put out to healthy nurses, were of active, sound minds. I have also observed in the issue of other goitred mothers, who nursed their own offsping, various degrees of mental imbecility, similar to the Cretins, but without their corresponding deformity of body. These cases are noted simply as medical facts, without pretending to assert that the milk of a goitred mother produces either idiotism or imbecility, or that these instances are merely accidental—let further facts determine.

A case of obesity occurred in Candor, worthy of note, in a child who died in his ninth year. The circumference of his arm, in the middle of the humerus, as ascertained by measurement, was one foot two and a half inches, and he weighed, I think, 180 pounds; he was of no more than ordinary height. There was a constant tendency to obesity

* New-York Medical and Physical Journal, Vol. 3d.

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from his early infancy. For some months previous to his death there was oppression of the chest, some irritative cough, and severe dyspnea upon exercise; and he died apparently from a diminution of the cavity of the chest, by its being filled up with fat. There was nothing uncommon in the appearance of several other children of the same parents.

The Asiatic cholera did not appear during the year of terror, (or since,) in a form that was noticed. Many persons during that summer were affected with a diarrhœa, and if a minute investigation had been made, perhaps it would have been found that very few escaped; but the pure air, sparse population, industrious and temperate habits of society, rendered it of so little importance, that a physician was rarely consulted: and in no instance was there a state of collapse, or a case that could be called *a case of cholera*, in the common acceptation of the term.

The common contagious diseases, such as measles, whooping cough, &c. have prevailed at different times, as well as influenzas; the years are not remembered, except scarlatina,* which first made its appearance in the autumn of 1831. This disease did not affect but a small part of the population, even of those who were born in the county, and like the synochus, seldom attacked whole families, sometimes not more than one member; and cases often occurred, where it could not be ascertained that the affected person had been exposed to the contagion. It would be heresy to doubt that this disease could arise from any other source than contagion; but the facts that so many cases have occurred in which only one or two members of a family have been affected, though all exposed; and of one or two families in a neighborhood, while many who have never had the disease, remain unaffected after frequent exposures for a long time, as nurses, visitors and physicians; and the appearance of cases without known exposure,—require that the laws which govern it,

* I include in this term the cynanche maligna.

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(varying so essentially from those that regulate other contagious diseases,) should at least be further investigated. The other contagious diseases have not varied materially at their different visitations, either in their mildness, severity, or appearance, from what is described by writers on the diseases in other places—there are always some severe and fatal cases, and others so mild as simply to produce indisposition.

A case of a second affection of the measles, recently came under my observation. A female, aged 40 years, states that she was so severely diseased with the measles at the age of 16 that her life was despaired of for some days, and that her brothers and sisters were all infected from her. Since that time she had not seen a case of measles till this summer, when her own family (she being now the mother of several children) became affected;—about two weeks after the eruption appeared on the last of her children, *she had the measles a second time:* the eruption was diffused over the whole body, every diagnostic mark of the disease was present, and it was in no respect different from a primary affection, except that she was free from coma, and the pyrexile symptoms were less severe than ordinarily appears where the eruption is equally extensive. No trial was made whether she would infect others. Does not the lapse of years in all cases render the system obnoxious to a second attack of contagious diseases in a greater or less degree? I have often been consulted by persons affected with that peculiar con-cachinating cough, heard no where but in pertussis, that were living within its infected atmosphere, and who years previous had had the disease; and I recollect once to have heard a man upwards of 70 years of age, in like circumstances, clearly and distinctly whoop for several days. Most physicians must have observed many instances in which the system has been *deranged* by a re-exposure to the contagion of the small pox and other contagious diseases, though the infection does not produce in all cases, an eruption or other diagnostic marks. There have been but few isolated cases of small pox since the county has been

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inhabited. It has broken out several times, but so much excitement is always produced, that a general vaccination of all unprotected persons is resorted to as quickly as possible, and the disease dies for want of subjects to prey upon.

The treatment of diseases by the faculty is generally similar to the precepts taught in the medical schools of the state. Twenty-five years since, when there were but three physicians in the county, two were of the Cullenian, and one of the Brunonian school. The latter, a respectable gentleman, is somewhat ultra in his opinions, even for a Brunonian, not having in any case committed venesection for more than fifteen years, whether with less general injury to his patients than a Sangrado, may be problematical. Most of those who have since entered the profession, have been educated in more recent schools, and some of them have kept up with the progress of the science.

WILLIAM BACON.

Oct, 4th, 1836.

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ART. VII. MEMORIAL *on the subject of* CHOLERA, *and the means of mitigating its violence. Addressed to the Legislature of the State of New-York, April 17th,* 1833. *By* JAMES R. MANLEY, M. D. *Resident Physician of the City of New-York.*

(Communicated by the Author.)

As the resident physician of this city, the public have a right to expect that I will from time to time make such communications on the subject of the public health, particularly in relation to epidemic diseases, as may serve to direct the constituted authorities in the choice of the most probable means to arrest them, or to mitigate their severity. Such communications the board of health of this city may claim of me of right, but as the experience of the last year has sufficiently shewn that the right may be waived at will, without assigning a reason, I have thought proper to tender the following papers to you. The responsibility of my official station I trust that I fully appreciate; I am willing to assume it under all circumstances, and certainly cannot consent to acknowledge any measure of obligation to those who, without presenting a motive, would wish to relieve me from any part of its weight.

Our experience of the last summer has been severe beyond all former example, but it must be admitted also, that our instruction has borne no reasonable proportion to the measure of the chastisement; and if, in the judgment of Almighty God, we should be again visited by a like pestilence, it is scarcely too much to fear that our appliances to meet it will be found as inadequate as during the last season.

Cholera is a disease whose causes are as inscrutable as are those of epidemic measles or influenza; and we might congratulate ourselves if its treatment were but half so well understood. It is our misfortune, and the misfortune of the world (for it is probable that ere long we may be obliged to search for the spot which it has not visited,) that its course

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is too rapid and too terrific, and its symptoms bear too great a resemblance to those which in all congestive fevers, immediately precede death, to enable us calmly to contemplate its characters. Our care is not to cure a disease, if I may so speak, but to snatch the patient from the jaws of a death which appears to be inevitable, by means the most obvious, or the most convenient to apply. That a disease which for twenty years has ravaged the fairest portions of the world; whose victims are as numerous as the sands on the sea-beach; whose march has been rapid as the shadow of the sun-dial, and which has clothed in sack-cloth every city, village and hamlet through which it has passed, should at this day, and after such multitudinous experience, be as ruthless, as remorseless and as fatal as when it first appeared on the plains of India, is a problem the solution of which must stagger all the philosophy of medicine. Perhaps no epidemic which has ever afflicted the human family has received a larger share of attention from the medical profession. It may be reasonably estimated that more than a thousand different physicians in Asia, Europe and America have attempted to write its history, and transcribe their own experience, and to this hour, for all practical uses, the greater part is utterly valueless, certainly for all the purposes of prevention, and I had almost said, as guides in its medical treatment. Writers have been disposed to speculate on its remote causes in place of seizing on its proximate effects, although of the remote causes not only of this, but of all other general epidemics we can know nothing which we can apply to any practical use. This epidemic possesses a character which has hitherto defied all the researches of philosophy, and with our present measure of information respecting such diseases, it is scarcely to be presumed that we could possess the means to prevent it if our resources were so extensive as to be limited only by the measure of possibility. Who, in the exercise of his senses, would pretend to arrest the march of influenza or measles? and yet those diseases

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have been known and described two thousand years ago. We may as well confess our ignorance at first as well as at last; the most intelligent physician or natural philosopher knows no more of their causes than the peasant or the artizan; the only difference between them is, that the one can conceal his ignorance in terms of science, while the other is obliged of necessity to confess it. It has been called an *atmospheric disease*, a disease arising from *telluric* exhalation, a disease resulting from a depraved state of the air we breathe, from a deficiency of electricity; and for all the information derived from these speculations, it might as well, and perhaps with as much propriety, be imputed to the influence of magnetism. In truth, we know nothing about its cause, and can know nothing with certainty, and we are compelled to confine our views to its effects. Our most accurate analysis of gaseous agents teaches very little on the subject of marsh miasmata; we believe them to be causes of fever; but why these causes should produce fever of an intermittent type in one case, a remittent in another, a dysentery in a third and endemic cholera in a fourth, is still a secret to the wisest.

But if we are fated to be ignorant of its origin, we are not devoted to destruction from its influence; that cause, be it what it may, is known to act with more or less intensity, as causes which we in a measure can control, co-operate with its agency. Heat, moisture and accumulation of putrescent materials are known to increase its malignity, either by adding to its virulence, or by inducing a predisposition to be affected by it: and against the known results of these and many other circumstances, subsidiary to the spread of epidemics, it is our business to guard, rather than spend our strength in fruitless attempts to ascertain that which when known could add nothing to our stock of preventive measures.

Cholera is the most remarkable plague known in the annals of history, and although it is only within the last twenty years

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that it has attracted special attention, there is abundant evidence to prove that it is no new disease. More than two hundred years ago, (1629,) it, or a disease so similar as with difficulty to be distinguished from it, has been described as an epidemic in equinoctial India, (Java); and at various periods, according to the reports of the Bengal and Madras medical boards, it has been epidemic in almost every section of those extensive presidencies, where causes known to be favorable to the spread of diseases presumed to arise from marsh miasm most abound. Its course in some of its visitations, is described as inconceivably rapid, its victims submitting to the stroke of death "by hundreds and at an hour's notice;" the time of its continuance in many cases being so short as to prevent the evolution of a train of symptoms by which it could be marked.

While its ravages were confined to India and its islands, and its range was restricted within limits which marked the natural home of pestilence; as it seemed to have no terror for the European, so it scarcely attracted any more attention than mere curiosity would excite; but when it assumed the character of a migrating epidemic; when passing over land in a north-western direction it entered Europe, and following the course of the great rivers, left its pathway marked by desolation and death, until it reached Petersburgh, and thence spread its terrors in almost every known direction; then it was that it became a subject of thrilling interest to all who by their contiguity, or by their commercial relations, considered themselves endangered by its influence. England, France and Germany took the alarm, and sent special commissioners to the various seats of pestilence in order to learn its history and the most successful method of its treatment, and the results which have been given to the world have been more calculated to create alarm than to calm the apprehensions which prompted these precautionary measures.

In the spring of 1832, it made its appearance in Quebec,

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in Lower Canada, and thence travelled in directions west and south, reaching this city in the latter part of June. The first case known to have the character of the disease terminated fatally on the 29th of that month, and although its existence was denied on the 2nd day of July, evidence which neither skepticism nor interest could resist, was furnished on the 3d; and from that day onward till the first of September, was emphatically the reign of the most awful pestilence ever known in this city. In July the number of deaths was 1,797; in August, 1,232; in September, 451; and in October, 63; making a total of 3,513, in the short period of one hundred days.

It is a remarkable feature in the history of this disease, that although its worst form has been described a thousand times, and with an accuracy which defies criticism, it has not in the least degree been divested of its terrors; its treatment is as much now as at any former period empirical; physicians who are called to treat it, are in truth obliged to contend "with death on the confines of the grave," their only business being to arrest the march of the destroyer, by preserving life enough in the patient to give an opportunity for the exhibition of remedies.

I have said that the disease in its worst form has been frequently described. I should rather have said, in its worst stage; and it is needless here to detail the symptoms, "*they are as familiar as household words.*" No man who has seen them can ever forget them, and none who has heard without having seen will require to have them repeated! The exhausting serous diarrhœa, the cold clammy sweats, the scarcely to be detected pulse, the cold tongue, the icy breath, the corrugated and blue-bleached hands and feet, and the painful spasms which precede and accompany them, are not more the evidences of disease than they are the premonitions of death, and especially mark the character of cholera in tropical climates, where causes auxiliary to the reigning agent, be that what it may, exist in a

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degree unknown in more northern and generally more salubrious latitudes. My own belief, and I trust that upon a full and calm examination I shall be found in a majority, is that the above symptoms, as they are the worst, so they are the last which make their appearance in this terrific plague. The cause ordinarily is operating in our latitudes for days and weeks before disease manifests itself with these awful symptoms, and those conditions of the system which physicians have been pleased to term *premonitory symptoms*, is in truth the disease itself. Then t is that medicines may be remedial in fact, and strange to say, this stage is almost always overlooked, or treated as of little consequence. As the evidences of sickness are not generally in this early stage painfully present, being occasisonal unpleasant sensations in the muscles of the arms and thighs, a capricious state of the bowels, sometimes loose, at others costive, unattended by pain, they are readily explained by some irregularity in diet or regimen; they create no alarm, nay, they may from time to time be repeated without exciting any apprehension; there may be a constant disposition to sigh, and an occasional sense of fullness in the region of the chest, and still no alarm is manifested, for the patient is still able to attend to his or her ordinary business; these symptoms, notwithstanding, are sure evidences of diseased action, and their frequent recurrence may eventuate at an hour's notice in that awful condition of the subject which points with unerring certainty to the grave. If it be objected that in many instances there are no such symptoms as above described, I will readily allow it, knowing it to be generally true in tropical countries, and measurably so in this; but the reasons why they are not present may be the same in both. Asiatic cholera, and cholera as it has appeared in this country and in Europe, differ only in degree; the disease is essentially the same. In the first case, the auxiliary causes operate universally on all subjects: the exceptions are those in which premonitions exist, whereas in the last,

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the exceptions are those in which they do not obtain. In the one, the enervating influence of a tropical sun; the presence of marsh miasmata; the diurnal variations in the temperature of the atmosphere; the manner of living adopted by necessity, which in a great measure forbids the indulgence in animal food; and the excesses to which the rich are invited in some cases, by the restraints imposed upon them in others, all co-operate to create a predisposition to disease from epidemic causes, from which the inhabitants of more northern countries are exempt; and if the cause operates only with the same measure of intensity, it operates on constitutions so enfeebled as to be unable to resist its first attack, and by natural consequence it is followed by a train of symptoms which speedily terminate in death.

That the disease does frequently attack without warning in this country; that its access was occasionally as sudden and as violent in Petersburgh, in Paris, in Quebec, Montreal and New-York, as in India or any other tropical country, may be explained by the fact, that in all large cities, no matter where situated, there is always a large class who hold their lives on a very precarious tenure. The life of the destitute poor and dissolutely vicious is of this character; their irregularity of living, to say nothing of the evils of intemperance, is calculated to make them the fit recipients of disease, let it present in what form it may; they are especially the first victims of all epidemics; and when we add the degrading and the debasing effects of ardent spirits in excess, the want of prudence, the want of cleanliness, their utter recklessness of consequences, and their contempt of or deafness to the dictates of common reason, is it to be wondered at that this disease should occasionally attack without warning? Are not such persons always predisposed? I hope that I may be excused for insisting on the position, *that the symptoms usually termed premonitory* are those which mark the disease with as much certainty as those which immediately precede death, because I purpose to suggest a measure calculated to mitigate its se-

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verity, founded on this circumstance. The fact accords with my own experience and that of most of the writers on the subject whom I have consulted. The great error appears to have been, that those symptoms have been considered as of small consequence till their recurrence and continuance have dispelled all doubt as to their nature, and when the doubt has been dispelled, no time has been allowed to correct the mistake by reason of the exhaustion thus insidiously induced.

That the remote cause of cholera is universal in its operations within the sphere of its influence, may be inferred from the fact, that the blood drawn from the arms of all patients requiring this species of depletion, be their diseases what they may, is uniform in colour and consistence, and both shew that it has been submitted to changes which, with our present measure of information, may be justly ascribed to a want of due oxygenation; it is dark coloured, thick and tenacious; and blood drawn from patients labouring under cholera in its aggravated form not only presents the same appearance, but on analysis offers results which plainly demonstrate that it has been deprived of a portion of its constituent principles: the water is deficient; the salts which enter into its composition are scarcely appreciable; its colouring matter abounds, and it possesses neither taste or smell; and that this condition is not a consequence, but a cause of disease, is fairly to be presumed, from the circumstance that the change is produced without any perceptible organic lesion. The colour and consistence of the blood bear a strong resemblance to that drawn in congestive fevers, pneumonia or pleuritis for example, which is presumed to arise from a want of power in the lungs to oxygenate or decarbonise the circulating mass from oppression of those organs; and as no oppression is manifested in cholera, except as a consequence of disease, we have a right to infer that the change is produced, not by loss of function, but by a *deficiency* or a *depraved condition* or *combination* (and it is doubtful which,) *of the oxygen of the atmosphere*, which is essential to the life of all animals.

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It is not my intention to enter at large upon the discussion of this subject, nor would it be proper in a paper of this kind, but I advert to it to show that it is highly probable that this lepraved state of the blood is induced, not by the operation of a cause for a day or an hour's duration, but by a silent, insidious and comparatively tedious agency, at the first perhaps scarcely perceptible, afterwards rendered more sensible by inducing lassitude and sickness, and finally manifesting itself by those symptoms which authors have been pleased to term *premonitory.*

Entertaining the opinions of cholera and its cause as above recited, it is natural to enquire whether or not any measures can be adopted, with a probability of success, to check its progress or to mitigate its severity in the event of its recurrence. If the inquiry has reference to its arrest as an epidemic, I will without hesitancy, answer in the negative: we know nothing of the nature of the poison, and of course can know nothing of its antidote. We do know, however, that this epidemic is aggravated by causes which we may control or remove, and our attention should be, in an especial manner, directed to them: as preventive measures are not in our power, precautionary ones should engross all our solicitude.

The question of the contagiousness or personal communicability of this disease I will not attempt to discuss, and it will be time enough to waste words on the subject when one well authenticated case of this character shall have occurred; for so far as I am informed, either by my experience or my reading, that case is still to be recorded. It is a fundamental rule in philosophy, that "no more causes of natural things should be adduced to explain the phenomena of nature, than being true, are sufficient for the explanation," and no instance has yet happened which has required the aid of contagion to account for it, or which could be satisfactorily explained by its assistance; and I am concerned to say, that I believe that more harm has been done to the interests of humanity by the belief in this prejudice, than could otherwise have occurr-

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ed, even if a confidence in its contagious nature had been well founded, and the world notwithstanding had determined to resist the evidence.

The security of the public, when this pestilence prevails, depends very much upon themselves; although all may be, and in truth are, subjected to its influence, by far the greater part remains unharmed under its most severe visitations. It is possible for persons to become acclimated to a pestilent atmosphere, and good general health is the condition upon which they may claim their immunity. In the season of cholera therefore, it is necessary to guard every avenue by which disease may invade: the prudent must realize the necessity of more than ordinary caution, and the careless must learn wisdom; in the emphatic language of the Bible, all "*should use this world as not abusing it:*" all the proprieties of social life are to be considered as duties indispensable, and duties too accompanied with a promise; for if ever the providence of God addressed our very senses, and displayed itself as the rewarder of cleanliness, temperance, prudence, resignation and confidence, it is during the prevalence of this awful disease.

Temperance in eating and in drinking, not only in relation to the amount but the quality of food and drink, ought to be particularly observed. All excess in the use of ardent spirits, always a vice, and especially the vice of all countries where the bounties of Providence are most abundant, the means of subsistence cheap, and idleness may be afforded, is to be avoided as pestilence itself, for it is in seasons like this that its deluded subjects are required at short notice to pay up all their arrearages of penalty. All inordinate fatigue, and all unusual exposures, which may cause suppressions of perspiration, and thus induce predispositions to disease, are to be carefully guarded against; and in the choice of necessary food, that which is chiefly animal, in connection with vegetables known to be easy of digestion and least liable to acid fermentation, is to be selected. It is essential also to cul-

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tivate a temper of mind alike removed from the extremes of a reckless indifference which affects to fear nothing, and a timid anxiety which fears every thing, as there is known to exist an extraordinary and intimate sympathy between the mind under the influence of the depressing passions, and those organs which are peculiarly the seat of disease in this epidemic; and if an unusual condition of the stomach and bowels at any time occurs, although it may not amount to disease, let it claim attention in season, since it is always premonitory of danger.

To the constituted authorities of all places in which this disease may declare itself, in addition to the means usually adopted having relation to cleanliness and ventilation, I would suggest such an extension of police regulations as would embrace *markets*. The sale of all unripe or unwholesome vegetables, all stale or unwholesome provisions, and especially all stale fish, which constitutes a large part of the food of the poor in the Atlantic cities, should be prohibited under severe penalties. The peculiar care of the poor in seasons of pestilence, devolves on the magistracy of our cities and villages; their poverty is often their misfortune as the result of their folly, and it is not more a duty to relieve their distresses than it is to provide against them; and for this latter purpose, all information on the subject of exciting or occasional causes should be as fully distributed as possible. Their condition, more especially, in relation to diet, ought to be the object of attention. From absolute inability to procure for themselves wholesome and nutritious food, they are frequently obliged to eat the refuse of the tables of those in better circumstances, which, although it may have been of the best quality when first prepared, has become cold, hard and indigestible; and when taken in large quantities, as is usually the case, (for this class of people suffer all the inconvenience arising from inordinate indulgence on the one hand, and absolute hunger on the other,) it is a fruitful

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source of the diseases of indigestion, all of which are predisposing causes of cholera. The public must be made to know that the least indiscretion in seasons of cholera is attended with hazard, and that a single debauch may result in an attack which may terminate in death. Care should be taken, especially, that inquiries into the state of health of each family be made at least twice in every week, in order to ascertain, if possible, whether any person is indisposed from an affection of the stomach or bowels. If poor, medical advice and attendance should be furnished them at the public charge, and if in circumstances to employ their own physicians, they ought to be requested to avail themselves of their services before the disease assumes a serious aspect. Those affections of the stomach and bowels known by the name of premonitory symptoms are easily managed, and can be successfully treated by all intelligent physicians; and as they arise from the operation of an epidemic cause which we cannot control, our care should be to place the organs upon which the cause is known to spend its strength, in the best possible condition to resist its influence. By the adoption of this or some similar arrangement, few hospitals, in case of the prevalence of cholera, would be necessary; but those few should be *well appointed.* Physicians belonging to them ought to be required to keep a registry of all cases, with the histories and the treatment of all persons admitted, in order that a comparative estimate of the success of the several modes of treatment might be conveniently made for the benefit of others who would require information.

I am your's, with great respect,

JAMES R. MANLEY,
Resident Physician.

New-York, April 17th, 1833.

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ART. VIII. *Observations on the Causes of the large proportion of still-born Children in our large Cities over those of London. By the late* STEPHEN W. AVERY, M. D., *of New-York.*

(Communicated to the Society in 1831.)

It has been observed since the earliest times that man enjoys a greater exemption from disease, attains to a greater age, and propagates more rapidly in some districts or countries than in others; and an investigation of the causes which effect the natural increase of population, or which shorten or prolong the brief period of human existence, has always been a subject of interest to the reflecting and scientific world at large.

That nature has been more propitious in some respects to one portion of the globe than to another, can hardly admit of doubt; but she has always made up for the deficiency of one gift by the bestowing of another. Thus in some of the most fruitful and lovely parts of her creation, where she has lavishly supplied every thing that can charm the senses or please the taste, she has here and there scattered the seeds of disease and death which never cease to germinate and bring forth their baleful fruits; while in her wild and barren parts, shrouded in perpetual clouds and storms, with scarcely a sunny spot for the eye to rest upon, she compensates her hardy offspring with uninterrupted health and longevity. To Italy she has given a climate the most voluptuous in the world—a sky whose serene loveliness no language can depict—a soil unrivalled in fertility, producing almost without tillage the most delicious fruits and abundant harvests—beautifully swelling into hills or sinking into vallies, and watered by streams whose praises are celebrated in the poet's immortal verse.

But in Italy she has also placed marshes which like the fabled Python spread devastation far and wide. On the other

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hand the Swiss, surrounded by mountains covered with eternal snow, and amid all the severities of an Alpine climate, forces with unremitting toil a scanty sustenance from the reluctant earth—breathes an atmosphere that braces every nerve, and attains to old age in the enjoyment of perfect health.

With the discovery of a new world a boundless field was laid open for the labor and enterprize of civilized man, and the healthfulness or insalubrity of its various sections has given fresh impulse to scientific research, and materially added to the mass of facts relating to the indigenous causes of disease.

It is common for all new settlements to be more or less sickly for a time, and a sufficient explanation of the causes is found in the cutting down of forests, the exposure of immense quantities of vegetable and animal matters to the decomposing influence of the sun's rays, and the vast evolution of the gaseous substances necessarily resulting.

But when these apparent causes have ceased to exist—when the sturdy arm of agriculture has subdued the wild and rugged soil—"Labor omnia vincit, improba et duris urgens in rebus egestas"—and the population has become dense, the sources of disease are often enveloped in greater obscurity, and sometimes bid defiance to human scrutiny.

That man from infancy to old age should be exposed to a greater number of hurtful agents in one country than in another can be readily conceived; but that during his fœtal existence, while protected and nourished within the body of the mother, he should still be more exposed to the shafts of death, may perhaps be less easily understood. Such however appears to be the fact, and the material difference in the proportion of still-born children in our populous towns and those of Great Britain, has deservedly excited considerable interest.

It need not be stated that the only possible mode of obtaining positive information on this subject would be from registers, in which the entry of all the births in different towns or

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districts is strictly enforced by law. As no registers however of this sort are kept, either in our own cities or those of England, the next most probable source of information are the bills of mortality, but a great variety of circumstances will render the deductions drawn from these more or less inaccurate. For instance, the prevalence of epidemics, the greater or less influx of strangers, the number of children born out of wedlock, &c.

That epidemics and a great influx of strangers may increase the proportion of still-born in the bills of mortality, will not be doubted; and Casper, in his remarks on the mortality of children, estimates that in some cities "three per cent of the children born in wedlock are born dead, but that so many as fifteen per cent out of wedlock." (Edin. Med. and Surg. Jour. No. 88.)

No satisfactory inference can be drawn from the record of births kept by individuals, or even at the Lying-in-Hospitals, as they must be more or less confined to particular classes. Thus in neighbouring cities in the same kingdom, with no very great difference of climate or condition of the inhabitants, there is a material difference in the reports of the Lying-in-Hospitals. It appears from an abstract of the registry of the British Lying-in-Hospital for married women, Brownlow-street, Long Acre, London, that since its institution in Nov. 1749, there have been born 34,027 children, of which 1369 were still-born, being in the proportion of one in 24.8. During the year 1828, 2422 children were born in the eastern district of the Royal Maternity Charity, under the superintendance of Dr. F. H. Ramsbotham, London, of which 106 were still-born, being one in 22.8.

It appears from an abstract kept at the Lying-in-Hospital in Dublin, since it was first opened in December, 1757, that 114,468 children have been born, of which 6691 were still-born, being one in 17.1.

It would be foreign to the objects of this paper to attempt

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to explain the causes of the considerable difference that exists in the foregoing reports, which would most probably be found to be connected with the character and condition of the women, the period of pregnancy at which received, whether in cases of premature labour &c.; but they go to prove that no very accurate deductions can be drawn from such reports.

To return then to the best sources of information within our reach—the bills of mortality—the following it is believed will be considered sufficient data from which to draw some probable conclusions.

Bills of mortality published in the London Annual Register—

Years.	Still-born.	Total deaths.
1815	804	19560
1816	734	20366
1817	700	19968
1818	654	19705
1819	673	19228
1820	725	19348
1821	682	18458
1822	667	18868
1823	667	20587
1824	824	20237
Total,	7130	196325

Proportion of still-born, one in 27.5.

Extracted from the reports of the City Inspector of New-York.

Years.	Still born.	Total deaths.
1816	63	2733
1817	118	2527
1818	159	3265
1819	168	3176
1820	189	3515
1821	174	3542

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1822	205	3231
1823	233	3444
1824	250	4341
1825	244	5018
1826	302	4773
1827	291	5181
1828	338	5181
1829	360	5094
Total,	3094	55021

Proportion of still-born, one in 17.7.

Do. do. for first five years, one in 21.8.

Do. do. last five years, one in 16.5.

Extracted from the report of deaths in Boston—

Years.	Still-born.	Total deaths.
1820	89	1103
1821	99	1420
1822	115	1203
1823	109	1154
1824	89	1297
1825	88	1450
1826	87	1254
1827	80	1022
1828	74	1233
1829	65	1221
Total,	895	12367

Proportion of still-born, one in 13.8.

Do. do. for first five years, one in 12.3.

Do. do. last five years, one in 15.6.

From Emerson's Med. Statistics of Philadelphia, (American Journal of Medical Sciences, Nov. 1827.)

Years.	Still-born.	Total deaths.
1807	84	1961
1808	126	2145
1809	120	1884
1810	139	1897

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1811	137	2249
1812	142	2017
1813	66	2223
1814	96	2041
1815	97	1943
1816	94	2225
1817	110	2107
1818	156	2609
1819	145	2979
1820	185	3189
1821	211	2161
1822	257	3334
1823	228	4372
1824	115	4284
1825	273	3539
1826	306	3845
	3087	53004

Proportion of still-born, one in 18.1.

Do. do. for first five years, one in 17.7.

Do do. last five years, one in 17.4.

When we consider the number of strangers, particularly foreign emigrants of all ages, who annually arrive at New-York, Philadelphia and Boston—the frequent visitations of epidemic diseases—some of which, as dysentery and cholera, never prevail to any great extent in London—at least did not during the years mentioned in the foregoing bill—(less than 100 cases of dysentery, diarrhœa and cholera-morbus are reported in London, which has a population of between a million and a million and a half, in ten years ending in 1824, while more than 2000 are reported in New-York alone, which has a population not exceeding 200,000, in ten years ending in 1829)—and the probably much smaller number of children born out of wedlock in our cities, owing to the greater ease of providing for a family, and other encouragements to matrimony—all of which circumstances more or less affect the proportion of still-born in the foregoing bills, it

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can hardly be doubted that a much larger number of children are born dead among us than in London.

The question now arises—what are the causes of this mortality? Can it be owing to want of skill in those who act as accoucheurs? No one it is believed, competent of judging, will have the hardihood to assert that it is.

Almost all the midwifery business in this country is done by regularly licensed physicians; while in London it is principally in the hands of the apothecaries or general practitioners, (a class of medical men who can in no respect be ranked above our physicians, to say the least,)and female accoucheurs, of whose skill it is unnecessary to speak. Besides, the prejudice against midwifery in Great Britain is so great that a large proportion of young medical men, of marked talents, are prevented from devoting that attention to its study which it really requires, or engaging so commonly in the practice of it as in this country.

Dr. Davis says that young men are not unfrequently advised by their masters, on going to London or Edinburgh to finish their education, "not to put themselves to much inconvenience as to attendance on midwifery lectures, adding that the principles of that art are few and simple, as also very well detailed in books; and as to skill in practice, that it is only to be acquired by actual experience on the living subject." (See Elements of Operative Midwifery.)

As is well known, the College of Physicians of London does not allow its members to practice midwifery. It may be fairly concluded then, that the practice of midwifery is not in worse hands in this country than in England.

Can it be owing to the use of ergot? This opinion has been advanced, though without any positive evidence to support it. Indeed it seems to rest upon suspicion alone. (See a paper by Dr. J. J. Graves, N. Y. Med. and Phys. Journal, 1829.) That this drug is capable of producing the death of the fœtus, if given under certain circumstances, is the opin-

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ion of many of the most eminent practitioners; but that it is so administered, sufficiently often to perceptibly affect the bills of mortality, will hardly be credited by those who are well acquainted with the members of the medical profession in our cities, and especially in the absence of all proof on the subject.

It has been heretofore stated that no satisfactory inferences can be drawn from the records of births kept by individuals, or at the Lying-in-Hospitals; yet it may not be altogether useless to compare a few of those kept in this country, and in Great Britain and Ireland.

It appears from an abstract of the registry of the Philadelphia alms-house, from 1797 to 1815, a period of 19 years, that the proportion of still-born was one in 11; (see James' Merriman;) and from a register kept by that excellent accoucheur, the late Dr. Wm. Moore, that in his practice the proportion was one in 12.6; (see Francis' Denman.) In the British Lying-in-Hospital for married women, one in 24.8. In the Royal Maternity Charity, one in 22.8. In Merriman's list of cases, one in 19.7, (see Synopsis;) and in the Dublin Hospital, one in 17.1. Now the mortality at the Philadelphia alms-house, and in Dr. Moore's practice, cannot possibly be attributed to want of skill, or the abuse of ergot. As to Dr. Moore, it is well known that by far the largest portion of his practice was anterior to the general use of ergot, and I think after he became acquainted with it he never employed it to any considerable extent.

It is not reasonable to suppose that a single cause, such as the abuse of ergot, or want of skill in the medical profession, in a country like ours, can produce such marked effects in our cities as the bills of mortality exhibit; but it would be more rational to infer that some agent or agents acting *generally*, will be found to be the real cause.

In order to place this subject in as clear a light as possible, it may be well to inquire, first, what are the *most com-*

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mon causes of the death of the fœtus in all countries? and second, whether these causes are influenced by climate, diet, habits, and modes of living?

First, then, what are the *most common causes* of the death of the fœtus in all countries?

These are, 1st, whatever occasions the premature expulsion of the fœtus; and 2d, whatever hinders its natural delivery at the full time.

Before proceeding farther, it may be adviseable to take a cursory view of the condition of the female system during pregnancy.

The most remarkable peculiarities of this state are, an accelerated movement of the circulating fluids, a more rapid *sanguification*, an increased irritability, or susceptibility of the system to the influence of stimulants, and a constant tendency to plethora. The pulse is quickened, all the functions seem to be more speedily performed; the blood when drawn always exhibits a peculiar appearance, much resembling that noticed during the existence of inflammation, and the system bears the loss of it better than in the unimpregnated state. Apparently trifling causes produce febrile movements; and when once set up, they often require very considerable losses of blood to allay them. The effect of all active or stimulating medicines is materially augmented by the elevated sensibility of the system, and not unfrequently occasions very great disturbance if incautiously administered. In a word, all the phenomena produced by vascular fullness, and accompanying nervous excitibility, are generally present in a greater or less degree. Dr. Denman says, "all the complaints attending pregnancy, and perhaps the state of pregnancy, are accompanied with a febrile disposition or increase of heat, which, when duly regulated is probably intended to answer some important purpose to the child. This seems to be proved by the blood of pregnant women, which, independantly of disease, is always

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found to have what is called a sizy appearance, though of a peculiar kind and evidently very different from that which is observed in cases of inflammation, and which may be considered as a consequence of some new and specific action." (See Denman's Midwifery.)

Dr. Dewees says, "It would appear that the system of the pregnant woman is almost always labouring under a degree of excitement not common to her at other periods, and consequently that she will bear stimuli ill. But this acceleration of pulse, and susceptibility to stimuli, must not be looked upon as a state of absolute disease; when nothing more, it should only be regarded as a state which may be easily operated on by morbid or other causes, and hence the proneness of the system to fever from even slight causes." (Dewees on Females, p. 152.)

The causes which occasion the premature expulsion of the fœtus may be divided into accidental and predisposing. The accidental are falls, blows, immoderate efforts of every kind, frights, and other mental agitations, &c. These require no examination. The predisposing causes are, undue vascular fullness, great susceptibility of the system to the action of external agents, and probably morbid irritability of the uterus and its appendages.

It would be superfluous to bring facts to prove that vascular fullness is a common cause of premature labour, as it is so universally admitted by writers on midwifery. Indeed every practitioner is aware of the immense value of blood-letting in preventing such an event when threatened, and nature herself seems to guard against the effects of plethora in most cases by instituting a variety of sympathetic affections, such as morning sickness, acidity, loss of appetite and nausea, which prevent such a state of the system by hindering the quantity of nutriment from being received, which would produce it.

"It is a popular observation," says Dr. Denman, "confirm-

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ed by experience, that those women are less subject to abortion, and ultimately far better, who have such symptoms as generally attend pregnancy, than those who are exempt from them.

Dr. Dewees says, "we know a lady that is easily provoked to abortion, who can tell soon after the stopping of her catamenia whether she will carry her child or not by the state of her stomach. If she have no morning sickness or vomiting, with nausea and loss of appetite or disgust, she is certain to abort," and he says she is enabled to prevent such an occurrence, when these symptoms do not appear, by loosing blood, low diet, &c. (Diseases of Females.)

Whenever plethora exists, the susceptibility of the nervous system generally becomes elevated, but during pregnancy this susceptibility is evidently depending in a greater or less degree upon the peculiar process going on in the uterus. In the early months it appears to be greatest, for the system seems to accommodate itself to the new action after a time, and is less disturbed by it. But during the whole period of pregnancy, it is much greater than in the unimpregnated state.

That irritability of the uterus and its appendages may be a cause of abortion, is admitted by Denman and others, and it can scarcely be doubted, that women who suffer much from leucorrhœa are peculiarly subject to miscarriages.

Here a question may arise which cannot be easily answered, whether the abortion is produced by that condition of the system generally which attends leucorrhœa, or by the irritability of the uterus occasioned by the discharge. One point however can scarcely be denied—that organs secreting a preternatural quantity of fluids, especially unhealthy fluids, are in a state of morbid irritability—an irritable eye is inundated with tears—an irritable urethra is the cause of gleet, and an irritable state of the mucous membrane of the bowels will occasion a superabundance of mucous and constant loose evacuations.

These then appear to be the predisposing causes in the

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great majority of cases of the premature expulsion of the fœtus. It is true the fœtus may die without any apparent cause, and be expelled in a putrid state, the placenta may be attached over the os uteri and occasion its destruction, &c. but these constitute but a small portion of premature labours, and those brought on by hœmorrhage and convulsions in the seventh and eighth months principally depend upon plethora and undue irritability, as they are oftenest prevented by blood-letting, anodynes and low diet.

Now if it be admitted that there is a more rapid circulation of the fluids, a stronger tendency to plethora, and a greater susceptibility of the system to the action of different agents during utero-gestation than in the unimpregnated state, and if it can be made to appear that our climate, diet, habits and modes of life, undoubtedly increase this condition of the system, more than those of England, will it not be a reasonable conclusion, that the fœtus will be prematurely expelled oftener here than in England?

First, then, of the difference of climate and its visible effects.

The climate of England has been much abused for its variableness. The atmosphere is almost constantly loaded with moisture, and all the varieties of weather peculiar to the four seasons, are not unfrequently experienced within the 24 hours. One extreme rapidly follows another, and the cold of winter and the heat of summer, sometimes repeatedly alternate in the brief period of a day.

But what are these extremes of winter and summer? They are but trifling, as will appear in the sequel, when compared with those of the northern states. It is true, the climate is variable, but that variableness prevents a long succession of either very cold or very hot days.

The atmosphere is constantly loaded with moisture, which readily gives out its caloric and thus prevents the mercury from being long depressed, or as readily absorbs more and becomes more rare, which as effectually prevents

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the mercury from remaining but for a few hours, considerably elevated. In winter, the temperature may be for a short time as low as 10° but it is uncommon for it to remain any considerable number of days, much below the freezing point.

So in summer it may rise to 85°, but rarely remains long above 70°. During the warmest days, the moisture of the atmosphere and the winds occasioned by the proximity of the sea render the nights almost always cool. Indeed it is a fact so universally admitted, that the climate of England, is altogether cooler in summer and milder in winter, than that of the northern states, that it might appear unnecessary to bring proofs of it. But perhaps the following will not be deemed superfluous.

In London the mean temperature of
July, 1821, was 59, 80.
" 1822, " 61, 91.
of January, 1821, was 37, 67.
" 1822, " 38, 70.
(From the London Annual Register.)

In New-York the mean temperature of
July, 1829, was 73°.
" 1830, " 80°.
of January, 1829, was 28°.
" 1830, " 26°.
(From a report of a committee appointed by the Medical Society on meteorology.)

In London, the mean temperature of the winter months, according to Dr. Clarke, (work on Climates,) is 39°, and of the summer months, 62, 32.

According to the above report the mean temperature of the winter months in New-York was,
In 1829, 34°, in 1830, 35°.
Summer months, 1829, 74° 5, in 1830, 76°.

According to Emerson's Medical Statistics of Philadelphia, (American Journal of Medical Sciences,) the mean

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temperature of the winter months calculated from March 1811 to February 1830, is 32.5, of the summer months 74°.

The following table from the London Annual Register, will show that in London the mercury rose but twice above 86° and fell but twice below 10° in 13 years.

Year.	Lowest fall.	Highest rise.
1812	21°	77°
1813	20	77
1814	15	86
1815	20	78
1816	5	81
1817	14	86
1818	18	93
1819	10	86
1820	13	84
1821	21	84
1822	15	89
1823	4	78
1824	21	84

From a table kept by a gentleman of New-York. The lowest fall was taken at 8, A. M. and this of course is not the lowest of the 24 hours. The highest rise was taken at 3, P. M.

Year.	Lowest fall.	Highest rise.
1821	5° below zero.	95°
1822	½ above.	92
1823	7.5	90
1824	9	89
1825	9	98
1826	2	90
1827	3.5	95
1828	10	95

From Emerson's Medical Statistics of Philadelphia.

Year.	Lowest fall.	Highest rise.
1811	0°	93°
1812	6	83

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1813	12	89
1814	18	85
1815	10	92
1816	6	90
1817	4	87
1818	9	97
1819	17	94
1820	11	

The mercury sinks considerably lower in Boston than in New-York and Philadelphia, but tables have not been obtained to compare.

The effects of the climate of England upon the human constitution are healthful and invigorating, when compared with that of most other countries. The English are remarkable for their ruddy complexions, strong muscular frames, and general embonpoint; and mothers often retain the bloom of youth till after the period of child-bearing, and sometimes as late as 60. All travellers agree in this—that it is not uncommon to see the mother of a large family still beautiful—and that judging from the appearance of the women, the standard of health is much higher in England than in America. Bisset Hawkins says, "it is indisputable that the average proportion of deaths in England and her cities is less than in any other country of Europe; and it may be added that the powers of body and mind are preserved to a later period in higher perfection here than in any other countries. No where are the advances of age so slowly perceived, and no where so little manifested on the exterior." (See Elements of Medical Statistics.) Though the weather is variable, the changes are not comparatively great, and the coolness and moisture of the atmosphere appear to elicit the blood to the surface and keep up a free circulation in the dermoid vessels, which probably has considerable effect in preventing an undue elevation of the sensibilities of the internal structures.

The climate of America is very different from that of

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England. Though not as variable, the variations of heat and cold are altogether greater, particularly in the northern and eastern states. For weeks together our sky is serene and almost cloudless, our atmosphere dry, and warm and cold weather follow each other with great regularity through the different seasons. But the heat of summer vies with that of the tropics, and the cold of winter approximates in intensity to that of the poles. Our bodies, relaxed and debilitated by the extreme heat of one season, are ill prepared to sustain the severe cold of the other, and when in some measure habituated to the latter, must suffer more or less from the effects of the former.

As a people, the Americans are paler and less robust in their appearance than the English. Our females are scarcely mothers when the rose entirely fades from their cheeks; their forms are altogether more delicate, and they grow old at a much earlier period than those of Great Britain.

Diseases depending upon congestions in the abdominal viscera, morbid irritability of the mucous surfaces, hepatic derangements and fevers, characterised by bilious symptoms, are much the most frequent in America. The following facts have some bearing on this point.

In ten years ending in 1829, there were reported by the City Inspector of New-York, (out of a population of about 200,000,) 1522 deaths from dysentery, 700 from diarrhœa, and 224 from cholera morbus—making in all 2446.

In London, with a population of between a million and a million and a half, for ten years ending in 1824, the bills of mortality contain less than one hundred deaths from all three of the above diseases. (London Annual Register.)

It may be asked in this place, whether the great prevalence of bowel complaints may not be a cause of a considerable number of abortions and premature births? as it is stated by many writers on midwifery that they not unfrequently have this effect.

This however does not appear to be the case. The fol-

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lowing table will show that there is no material difference between the number of still-born in the months in which bowel complaints are most prevalent and those in which they are least so. From the City Inspector's reports, New-York. Still-born in—

Year.	July.	Aug.	Sept.	Dec.	Jan.	Feb.
1819	14	9	13	10	19	19
1820	16	21	10	16	22	13
1821	17	16	10	25	13	10
1822	22	14	17	9	21	19
1823	26	13	20	23	13	16
1824	21	23	15	17	25	19
1825	31	24	17	21	12	20
1826	21	15	27	36	17	24
1827	26	30	27	17	22	28
1828	4	14	12	14	23	14
	200	179	168	188	187	182
			179			187
			200			188
			547			557

No fact perhaps is more generally admitted than that passing from a low temperature to a high one, as in going from northern latitudes to the tropics, strongly predisposes to a plethoric state of the system. Hence the propriety of persons from the northern parts of Europe and America, loosing blood or taking cathartics and adopting a light diet, in visiting the East or West Indies.

This effect of change of temperature is also constantly observed in our northern states in the spring of the year. Nothing is more common at that period than to hear people complaining of a variety of symptoms depending upon fullness of blood, and it is customary with many individuals to be bled or take cathartics every spring, as they suffer more or less inconvenience by neglecting to do so.

Again, the passing from an elevated to a low temperature

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evidently disposes to local congestions or engorgements of different organs. The blood is then driven from the surface upon the viscera which renders them irritable and liable to take an inflammatory action.

Hence the necessity of carefully protecting the surface in order to avoid attacks of inflammation in going from warm to cold latitudes, and hence the prevalence of diseases depending upon irritability and engorgement of the abdominal viscera, as dysentery and cholera, when the hot days in September are accompanied by cool nights; and of bilious remittent and continued fevers, so constantly marked by symptoms indicative of engorgement of the organs contained in the great cavities of the body, in the fall of the year.

It seems then to be a legitimate conclusion, that constantly passing from one extreme of temperature to the other, must greatly encourage a disposition to plethora and congestions of the viscera, and consequently keep the irritability of the system morbidly elevated. If this be admitted, it is not unreasonable to suppose that the tendency to plethora and irritability of the system, which constantly exists during pregnancy, may be materially augmented by the prodigious changes in the course of the circulating fluids, occasioned by perpetually vibrating between extremes of temperature; and it will be evident that all the causes which commonly bring about the premature expulsion of the fœtus, must be far more certain in their effects in this country than in England.

This is an important part of the subject, and it may be well to recapitulate its leading positions.

First, are the irritability of the system and tendency to plethora greater during utero-gestation, than in the unimpregnated state?

Secondly, is our climate materially hotter in summer and colder in winter than that of England?

Thirdly, do great extremes of temperature affect the human system in the manner pointed out?

If these questions be answered in the affirmative, is it not a

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just conclusion that the predisposition to premature expulsion of the fœtus must be greater in the largest portion of the United States than in England?

In all large cities, refinement, luxury, idleness, the irregularities of a life of gaiety and dissipation, the influence of passions and emotions of the mind, highly stimulating food and drinks, improper dress, and a thousand other circumstances, not to mention the effects of bad air, may be set down as causes calculated to impair the healthy performance of the various functions of the body, to render it morbidly irritable and occasion an unequal distribution of the circulating fluids to the different organs. Of course the number of still-born children must be always greater in cities than in the country. This remark is confirmed by the report of 1200 cases of labor by Dr. D. R. Arnell, of Goshen, N. Y., in which there were only 23 still-born, or one in 52, while in Dr. Moore's list there were one in 12.6.

It has long been observed that the systems of people residing in the country are much less irritable than of those living in large towns, of course a country life is best calculated to resist the peculiar effects of climate, to give tone to the muscular fibre and to keep the mobility of the system within proper limits.

This is in some measure illustrated by the vast difference in the prevalence of leucorrhœa in the city and country.

In the former it is so common as almost to pass unnoticed, while in the latter it is looked upon as a real disease. That the females of our cities are more subject to it than those of London, appears to be the opinion of many who have had an opportunity of judging, and it can hardly be doubted that when habitual, it powerfully predisposes to the premature expulsion of the fœtus.

If the view which has been taken of the influence of our climate be correct, it must be evident that it performs an important part in promoting the action of the ordinary causes of leucorrhœa.

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The diet, habits and modes of living of our females differ considerably from those of the English.

In the first place, American mothers are celebrated for their attachment to home, a fondness for domestic employments, and great solicitude in bringing up their children; amiable as these virtues may be, and however justly they may merit the fondness and indulgence for which American husbands are notorious, there can be no doubt that in their great zeal in exercising them, our females often essentially impair or entirely sacrifice their health. Instead of regularly going out daily for the benefit of fresh air and exercise, the whole life, from the time they become mothers, with the exception of Sundays and an occasional visit to a friend, or the shop-keeper, is spent within doors; consequently the system becomes preternaturally sensitive, and a tendency to plethora and mucous irritability is greatly increased.

On the contrary, women in like circumstances in England are much more in the open air. They divide their time more rationally between the nursery and the healthful walk, and though they do not appear so excessively anxious about every little circumstance relating to their children, there is no doubt they entail on them the most invaluable inheritance, a good constitution, by taking proper measures for invigorating their own.

From the earliest ages a healthy mother has been considered necessary to ensure a healthy offspring, and the robust frames and strong nerves and capability of enduring fatigue, of the Spartan youths, were in no small degree owing to the athletic exercises of their mothers, and justified the reply of the wife of Leonidas when told by a stranger that the Spartan women were the only ones who held an ascendancy over the men, "very true," said she, "we are the only women who bring fortuhme."

The article of diet next deserves our notice, as there is considerable difference in the American and English modes

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of living. Plainness and simplicity are characteristics of an English table, while profusion and endless variety are in some measure peculiar to America. Animal food is generally eaten here for breakfast and dinner, in England for dinner only, and puddings, pies and sweet-meats, those indubitable marks of good house-wifery among us, are far less common in England.

These facts need not be illustrated by examples or supported by argument, they are acknowledged by every traveller.

A stimulating and highly nutritious diet, is always injurious to a feeble constitution, especially in a hot climate, of course it must be *caeteris paribus* attended with worse consequences here than in England, as our females from a variety of causes are much less robust, and the temperature of a large portion of our year is far above what occurs in England.

We know, that a cool atmosphere and a great deal of exercise will enable the system to dispose of a large quantity of stimulating nutriment, a quantity indeed, which would invariably produce plethora and a disposition to feverish excitement under different circumstances. We also know, that simple, plain food is much less apt to coax the appetite and encourage indulgence, than profusion and variety. The following quotations will sufficiently exhibit the effects of an inactive life and too nutritious food upon the pregnant female.

"Particular kinds of diet," says Denman, "are found to add to this disposition to inflammation, and to increase irritability; of these the principal is animal food, &c. (See Midwifery.)

"Indulgence in animal food and in strong or fermented drinks, particularly porter, is among the most powerful causes of increasing the general irritability attendant on pregnancy." "Moderate exercise in the open air and an abstemious diet should be enjoined on pregnant women." (Francis's *Notes* to Denman.)

"With those who lead indolent lives and who feed luxu-

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riously the case is very different. In such more blood will be made than can advantageously be employed, consequently there will be "plethora," and not only plethora, but augmented irritability, and therefore a liability on the part of the uterus to be thrown into contraction by smaller causes, sometimes than ordinary." (Dewees on Females.)

In dress considerable difference undoubtedly exists between this country and England. Here, more attention is paid to appearance, and there more to comfort; as an instance, compare the covering for the feet worn by our females in winter, the prunelle shoes and thin stockings, with the comfortable thick shoes and stockings worn by the ladies in the streets of London at the same season. It is unnecessary in this place to enlarge upon the subject of immediate sympathy existing between the feet and legs and the uterine system, and the effects of exposure of the lower extremities to cold and moisture, more especially in those who are enervated by their habits of life.

Tight dressing is without doubt a common cause of mischief in our fashionable circles, indeed it would be difficult to estimate the full extent of the injury which the expanding forms of our girls of fifteen and sixteen sustain by this practice; all the muscles of respiration are hindered by it in the performance of their office, the stomach and liver are forced backward and upward, the lungs are crowded into the superior part of the thorax, and the bowels pressed backward and downward must seriously encroach upon the contents of the pelvis. The free circulation is more or less impeded, and to a certain extent all the internal organs must suffer. But the evil does not stop here. It is a well know fact that the women of no other country carry their ideas of modesty and delicacy so far as those of our own. The consequence is, that young women who are much in society not unfrequently attempt to conceal their pregnancy as long as possible by means of tight dressing. As their feelings compel them to relinquish its pleasures and retire from the public gaze as soon as their

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situation is easily discernable, many of them instead of leaving their clothes loose from the first moment the uterus begins to expand, or the abdomen to enlarge, continue to dress tight for a considerable length of time, thus hindering the natural developement of the uterus, and encouraging a disposition to abort. But in some cases it is not merely till the fifth or sixth month that the clothes are worn tight, we have more than once been called to women in labour at or near the full time, and found them with corsets on.

Pressure so regulated as to prevent the free enlargement of the abdomen is very certain to produce the premature expulsion of the ovum, and there is very little doubt that it has been occasionally resorted to expressly for this purpose. In one instance which came to our knowledge, an individual who had obtained the rank of a regular physician, undoubtedly adopted this plan more than once in order to conceal his own *guilt*.

Another point worthy of notice is, the premature introduction of our females into society—a step which is much earlier taken here than in England, as is well known to every person of general information.

The change which takes place in the female system at the age of puberty, renders it perhaps the most interesting and important period of her life. The full developement of all the organs which mark the sex, and the numerous sympathies necessarily induced—the consciousness of womanhood, and the passions and emotions of the mind newly awakened, all tend to give a different course to the circulating fluids, and to exert a powerful influence over the nervous system.

At this critical period, a great variety of causes which a few years earlier or later would be harmless, or nearly so, may produce serious consequences. The formation of the constitution which is now going on, may be easily interrupted—the passions are unduly excited—the natural sensitiveness of the system morbidly increased, and the whole frame materially enervated.

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We know that the most astonishing connexion exists between the uterus and the organ of mind. In many females a fit of anger or immoderate joy or grief will occasion an immediate attack of leucorrhœa, and there is good reason for believing that strong desire may sometimes produce a sanguineous discharge or menorrhagia. Of course the passions and imagination prematurely called forth must have a powerful influence upon the uterine system and consequently upon the system generally.

Little do parents imagine that by introducing their daughters too early to society, they are exposing them, at a period they are least fitted to withstand their effects, to a host of moral and physical causes, all tending to enfeeble their constitutions and bring suffering and disease upon them and their offspring.

In New-York it is not uncommon for girls of fifteen or sixteen to be initiated into all the pleasures and gaieties of fashionable life. Perhaps in the fall of the year they return to the city, after a residence of several months in the country, in all the blooming loveliness of expanding woman-hood and with all the vivacity and exuberance of spirits peculiar to that age. At once they begin the round of amusements, perhaps two or three times a week attend a crowded party, spend the preceding day in breathless anticipation and the arranging of dresses, go at eight or nine in the evening and dance till one or two at least. The spirits are immoderately excited, the circulation greatly accelerated by exercise, stimulating drinks, confined air and tight dresses, and the stomach loaded with cake, fruits, nuts and a great variety of other matters. At last they return home, possibly with no other additional clothing to protect them from the cold night air, than a shawl or a light cloak, and finally find themselves in bed with cold feet, shivering limbs and no inclination to sleep. After a night of tossing from side to side, they rise late next morning, pale and languid with a rapid pulse, aching head and disrelish for food. These feelings have scarce-

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ly time to subside, when they are again renewed by a similar cause, and thus the winter months pass between high excitement and consequent depression.

In the spring the rose has faded from the cheek, the plumpness and rotundity of form which lately imparted so much beauty, have in a great measure disappeared, the pulse is quick and feeble, the appetite bad, the spirits low, and the surface readily affected by the slightest changes of temperature.

They are now with much truth declared to stand in need of country air, which perhaps to a certain extent restores the system to be again prostrated by the dissipation of the succeeding winter. In this way the constitution is broken while forming, and they become the feeble, dyspeptic, nervous mothers of a puny offspring.

One of the consequences of premature introduction to society is very early marriages, which are much more common occurrences here than in England. On this subject it is only necessary to say, that though child-bearing is a perfectly natural process, there can be no doubt, that becoming a mother before the constitution is fairly formed, prevents many females from arriving at the maximum of strength, and occasions premature old age.

It would be easy to point out more fully the effects of the foregoing customs and habits upon the young female, but it is only necessary that they should be mentioned to be duly appreciated by the careful observer of the phenomena which the human system exhibits.

If the view which has been taken of this subject be correct, it must be evident—

First, that the standard of female health is lower in our large towns than in London, and that the difference is occasioned by the combined effects of climate, diet, habits and modes of living, &c.

Second, that as the delicate female is much more liable to miscarry, than the robust, "omnes autem istœ externae

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causae non semper subito et immediate aborsus concitant, sed vel intervenientibus dispositionibus internis vel sensim et earum opera genitis," the premature expulsion of the fœtus must oftener occur in this country than in England.

The following table from the Register kept by Dr. Moore (See Francis's Denman,) may perhaps contain some additional evidence in favour of the opinions already advanced.

2866 labours produced 2896 children—227 still-born.
2516 natural labours—both mother and child did well.
106 " " child died.
2 " " both died.
65 preternatural cases in which both did well.
41 " " " child died.
5 " " " both died.
29 flooding cases in which both did well.
26 " " " child died.
9 " " " both died.
8 convulsion cases in which both did well.
9 " " " child died.
3 " " " both died.
7 forceps cases in which both did well.
7 " " " child died.
4 " " " both died.
14 crotchet cases.

Now it appears from an examination of the Register, (through the politeness of Dr. S. W. Moore,) that nearly all the 108 children which died in natural labor, were born before the eighth month—that of the preternatural cases, 5 were distorted pelvis, 2 face presentations, 8 arm do., 15 breech do., 1 feet do., and 2 attachment of the placenta to the os uteri. The largest proportion of the flooding cases were premature, 26 of the whole number seem to have died from the length or difficulty of the labour, and a small number could not be placed under any head, as they were merely set down as still-born without any note indicating the

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cause of death. In 227 still-born, considerably more than half were without doubt premature.

From these facts it may be reasonably inferred, that two-thirds at least, of all the still-born in New-York are premature.

First, because Dr. Moore's great celebrity as an accoucheur occasioned him to be called in consultation to a larger number of preternatural cases than falls to the lot of an ordinary practitioner, (all of which cases he has recorded.)

And second, because the proportion of premature cases in his list, must be much smaller than the actual proportion of all the still-born of the city, inasmuch as premature labours are comparatively but seldom the subject of consultation, and furthermore that there is a great number to which a physician is never called.

The causes which commonly prevent the natural delivery of the fœtus at the full time, are mechanical obstructions in the pelvis, such as distortions, tumours, &c., mal-presentations, and an unyielding state of the soft parts.

These causes we have no good reasons for supposing occasion the death of the child, more frequently, in this country than in England. Indeed, it is more than probable that one of them at least—distortion of the pelvis—is much more common in England, especially in the manufacturing towns, than here.

It may not be amiss to compare some of the cases reported by Merriman, with those reported by Dr. Moore, though no positive conclusions can be drawn from them. In 2947 labours, Merriman had 19 cases in which the superior extremities presented, 78 in which the nates or one hip presented, 40 in which the lower extremities presented, 9 crotchet cases and 21 forceps cases. In 2866 labours, Dr. Moore had 8 arm presentations, 15 breech presentations, 1 feet do., 14 crotchet cases and 19 forceps cases.

The inference which may be drawn from the foregoing remarks are, first, that the larger proportion of still-born in

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our cities than in London, is not at all dependent upon accidental circumstances, but upon a combination of causes which lower the standard of female health, and occasion the more frequent, premature expulsion of the fœtus. Second, that the means of preventing this mortality must be found in an entire change in the habits of our females, from their infancy till they cease bearing children,—in instituting greater simplicity of diet, more proper clothing, more regular exercise in the open air, in avoiding the causes of undue mental excitement, such as too early introduction to society, &c. But alas! these things are not under the control of the medical profession. Physicians may see the evil and point it out, but comparatively few will be induced to avoid it. Children will still be made women; still they will dress in the manner termed fashionable, no matter how uncomfortable and inconvenient it may be; still they will waste their strength and enfeeble their constitutions every winter by a round of gaiety and dissipation, and when they are mothers they will still indulge in a diet too nutritious and stimulating, and in their comparatively inactive in-door existence. And add to all this the effects of our climate, they will continue to give birth to a greater number of dead children than the females of England.

The physician, however, will be acting consistently with the principles of a humane profession, by endeavouring so far as may be in his power, to prevent the evil, by constantly and unhesitatingly denouncing those habits and customs which unquestionably enfeeble the female constitution, and if the members of the profession would unanimously take this course, very marked results might be derived from it.

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ART. IX. *An Essay on* TYPHUS FEVER, *by* JAMES FOUNTAIN, M. D. *of Westchester County, (State of New-York.)*

(Communicated by the Author.)

1. *History of Typhus Fever.*

As preliminary to the investigation of a disease, it is customary to offer a definition; by which is understood a short explanatory description of such symptoms and conditions as shall include every variety of the disease, whilst it excludes every other pathological condition. On this point I shall introduce, as conclusive, the observations of Dr. Armstrong, who says, "Now it happens that we have no correct definition of typhus, nay, not the semblance of a definition; for it is an insult to common sense to admit Cullen's definition to be such, which includes none of the essentials of typhus fever, and is so loosely worded as to be applicable to the last stage of any fever where the brain is much affected. In truth, it contains no correct allusions to genuine typhus fever." After thus buffeting Dr. Cullen's definition, we should naturally expect something better by way of substitute, but as none is given we must conclude that he considered the attempt impracticable. "Typhus (observes Dr. Nathan Smith,) at its commencement, exhibits so many symptoms in common with other febrile affections, that it is not easy for any to determine, whether the disease is truly typhus or not." Since, therefore, definitions are so very objectionable, I shall not undertake to form any short of a general description.

Typhus fever means literally, as we all know, stupor with heat; and the first question which presents itself is, to what morbid condition this appellation is to be applied. Shall it be applied to designate every state of fever, in which the brain and nervous system are agitated, and the powers of life are sinking, whether from the exhaustion of excessive action, or an adynamic condition, and their consequences, morbid and

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imperfect secretions? If so, the term will for ever maintain its loose and all devouring character, and forming the concluding part of all fevers which terminate fatally, the common subterfuge of ignorance, *that typhus has set in*, will still continue to disgrace the science of medicine.

The chain of fevers with some leading pathologists seems to run thus; an intermittent becomes a remittent, a remittent a continued, a continued a typhus. And judging abstractly from the phenomena present, and applying names to the conditions they represent, the recognizance appears correct. It is a notorious and lamentable fact, that by stimulation any intermittent may be pushed through all these migrations into a state of exhaustion and derangement, resembling typhus fever; and the same may be said measurably of all the hematica. If therefore "typhus fever" be meant to include this state common to all fevers, its history, causes and treatment would be a serious matter indeed. That this state bears a close resemblance to genuine typhus fever is evident to all; and though differing from it essentially in cause and treatment, still the relation is sufficient perhaps to entitle it to the appellation *typhoid*. The term, however, is calculated to convey an erroneous idea to the minds of the populace, as well as to create mistaken views in the practitioner, and lead to bad treatment; hence the science would receive an acquisition by the invention of a term significant of this state of exhaustion and nervous and cerebral derangement, confining the phrase "typhus" to a disease characterized *ab initio* by a peculiar train of symptoms; and this is the disease we are now to consider. The appellation adynamic substituted by Dr. Burne is seriously objectionable, inasmuch as it tends to confirm an opinion already too prevalent in this country, viz. that typhus is always a purely atonic or asthenic disease.

In pouring over the host of authors who have noticed this disease, one would be led to conclude that typhus fever assumed quite different characters in different localities.

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By one author typhus fever is divided into nervous and inflammatory; by another into simple inflammatory and congestive; and by a third into simple adynamic, and adynamic with local inflammation. Now all of these conditions may occur in a single case; hence the insufficiency of the divisions as bases of any important pathological doctrine, and I must beg to observe that these divisions are questionable in point of accuracy. It must be a strange fever, whether inflammatory or not, in which the nerves are not affected, therefore all fevers are more or less nervous. Furthermore, there are few persons in whom all the organs are in *equilibrio*, and one being debilitated either actually or relatively, is proportionably more deranged. Simple typhus *must* therefore be a rare occurrence, and if it were so at the commencement, it would not continue long in this condition, for all parts of the system in their most perfect state do not equally resist the assaults of disease, as the mucous membrane, some portion of which becomes, in every instance, sooner or later inflamed; hence every case might be called inflammatory. As to congestive typhus, it may be observed that the symptoms of typhus cannot be fully developed so long as the congestion continues, and this being removed the phrase becomes inapplicable and of course superfluous.

Dr. Burne subdivides his varieties into four grades, on which it may be observed that there are almost as many gradations as there are persons affected. The old division into typhus mitior and typhus gravior is, after all, as good as any.

Typhus fever seldom comes on without some premonitory symptoms. In general the person is many days indisposed, complaining only of weakness and fatigue with a bad taste in the mouth, loss of appetite, a disagreeable, sickish, sinking sensation at the pit of the stomach, a thin dusky-white scurf covers the tongue, he is disinclined to mental as well as bodily exertion, pain in the head, especially in the back part, increased in the afternoon and morning, and restless and uneasy

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nights. In the morning these uncomfortable feelings are nearly absent, and the sufferer thinks himself better, and will be soon able to attend to his business; he still has no appetite and feels feeble, chilliness is next noticed, he lingers around the fire more than usual, the countenance is pale and haggard, his pulse is frequent, and in the morning small and soft; in the afternoon it becomes fuller, but still soft and compressible, and the urine is scanty and high coloured, and the face becomes occasionally flushed. This vacillating state sometimes constitutes the whole disease; the bowels become loose, the skin moist, the urine more copious, the appetite returns, and convalescence ensues. When typhus fever is very prevalent, especially when many members of one family are suffering under it, this simple and mild form is often witnessed. It more frequently happens, however, that a shivering fit, nausea, vomiting, violent pain in the head, back and limbs with intense hot and burning skin, announce the invasion of the disease. The pulse now becomes more tense and bounding during the paroxysm; the tongue is covered by a dirty whitish coating with a disgust of food; the loathsome sensation at the pit of the stomach frequently amounts to actual pain and tenderness, as evinced by pressure, the bowels become costive, and a universal soreness is sometimes felt over the whole body as if bruised. As the disease continues the tongue becomes brown and dry, at first in a conical stripe in the middle, pointing towards the tip of the tongue, the point and edges of which grow redder than natural, the cheeks are flushed with rather a purplish colour and the eyes are suffused; the head becomes more painful with intolerance of light and sound. Sometimes, however, the senses are blunted from the very commencement, especially the hearing, indicating less danger than acuteness of sensation. About this time the pulse possesses considerable hardness, less however than in the phlegmasiæ. The disease seldom stops here, but the tongue becomes dry all over, and thickly coated with a brown or black crust, adhering firmly

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to the lips and teeth, and the prostration is great. The skin during the paroxysm is dry and burning, or rather of a stinging feel, and a peculiar odour exhales from the surface of the body, at once recognized by a practitioner of any experience. Tremors of the muscles, subsultus tendinum, and a tremulous sound of the voice are observed, and the hand shakes; sometimes a diarrhœa is present, but it is more the effect of neglect or mismanagement than a part of the disease.

At this period the carotids beat violently, the cerebrum becomes congested and the senses obtuse; neither pain nor thirst are now mentioned, the patient lies on his back, with his eyes shut in a stupid half-sleeping condition, frequently sliding down the bed and muttering incoherently, especially when not really in a sleeping or waking condition. If the disease continues to progress, the delirium becomes more permanent, except when aroused by a loud call; he then answers correctly to any interrogatories, but soon relapses into a state of stupor unless the conversation be calculated to create strong impressions on his mind. Much after this manner the disease is protracted two, three and four weeks, when it begins to decline, sometimes immediately after an epistaxis, a diarrhœa or a profuse sweat; at other times the amendment is gradual without any such occurrence. When however, the disease is about to prove fatal, the delirium continues to increase, the urine is retained or drizzles away, a diarrhœa is constant, the stools involuntary, the pulse flags, flutters and intermits, the extremities and surface become cold, the breathing shorter and more stertorous, a complete lethargy ensues, the skin is bathed in a cold clammy sweat, and death closes the scene.

In the course of the fever local inflammations arise, the most common are those of the meninges of the brain, the lungs, trachea and mucous and serous membranes of the thorax and abdomen, all of which are characterized by their peculiar symptoms which need not be enumerated

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here. Sometimes, especially in elderly people, the disease invades in the manner of an apoplexy, nay in many irregular modes of attack; but as these occurrences are seldom witnessed, I shall omit the detail of all extraordinary manifestations of the exciting causes.

The Tongue.—Throughout the whole course of the disease the appearance of the tongue is of the utmost importance, so much so that I would prefer it, considered singly, to any other guide, even the pulse itself. Dr. Burne has paid more attention to the tongue than any of his predecessors, yet he viewed it almost exclusively in reference to the belly, with whose condition it is indeed intimately connected.

In all cases of pure typhus the tongue is contracted with red edges and point; but when its full developement is prevented by congestion, the edges and substance are more or less purple. As the congestion gives way to the typhus, the purple vanishes into red. At the commencement the tongue is covered with a dirty whitish coat and is moist; and in mild cases it continues to wear this appearance with red prominent papillæ through its whole course; but as the disease advances in severity the coating becomes darker and more dry, first in the middle, and finally over its whole surface; and in all severe cases it becomes black.

The tongue cleans off variously. The most salutary change is evinced by the return of moisture, beginning at the edges which gradually lose their crimson tint and become paler; the scurf from a black or brown becomes purplish and smoothed over; and putting on a rotten aspect begins to wear off from the edges and apex. This process goes on slowly but regularly for several days; the coating recedes up the tongue, and is finally lost from its root, leaving it of a healthy appearance.

At other times the scurf peals off in large flakes, leaving the surface red, raw and sore, sometimes moist but generally dry and shining. This state is attended with an inflammatory state of the mucous membrane of the alimentary

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canal, hence it is most commonly followed by another thin whitish coating which increases in thickness for several days, after which it wears off gradually and is succeeded, though slowly, by the healthy appearance. This raw state sometimes though rarely changes gradually, and after many days the tongue resumes its usual aspect, without any removal of the scurf.

It is an unaccountable circumstance that an aphthous condition of the mouth and tongue should escape the notice of so many writers on typhus fever, and yet this state is quite common. After the fluctuation of mild cases, or the partial recovery of severe ones, debility, tremors, thirst and delirium continue in a moderate degree, and the mouth begins to be moistened by a milky, curdled, glutinous secretion and aphthæ are scattered over the tongue and cheeks.

Bowels.—Dr. Burne is the first writer who has attempted to systematize the condition of the bowels in typhus fever. He says there are two kinds of diarrhœa in typhus fever, "the black offensive" and the ochre-coloured." The first is peculiar to the most urgent condition of all severe cases, and the latter to the decline of the disease. As connected with the condition of the tongue he observes, "when the tongue is dry or parched, the coating dark or black, and the edges and point of a deep red, the belly is flatulent and tympanitic and tender in a corresponding degree; the bowels are relaxed and the dejections dark or black, constituting the dark or black offensive diarrhœa. When the tongue has cleaned off and is raw, smooth, red and tender, the bowels are relaxed and the diarrhœa is ochre-coloured and less offensive, except when the tongue is dry, and then they are still highly offensive. This coincidence of condition, however, is not a necessary result, but is consequent to the mode of treatment adopted; for neither "tympanites" or "black offensive" nor "ochre-coloured," nor any other diarrhœa is ever witnessed in properly managed remediable cases. Not even in enteritic forms where the mucous membrane is highly irritable, is di-

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arrhœa a necessary consequence. The dejections do correspond in a degree with the condition of the mucous membrane of the intestines, and this is influenced by the state and stage of the fever. In the first stages the bowels are loaded, and their contents, from the absence of gastric juice and substitution of vitiated secretions, are converted into dark, offensive, acrid and putrid masses by the play of chemical affinities; hence if these be not removed they speedily irritate and inflame and extricate gas, and tympanites and "black offensive diarrhœa" is the consequence.

These putrid colluvies being dislodged the dejections become paler and finally ochre-coloured, and continue so provided they are often removed. Much, however, depends on the cathartics administered. Calomel usually prescribed at the onset changes the stools black, and it will continue to keep them so as long as its use is persisted in. And rhubarb, Dr. Burne's favorite laxative, and the best at the decline of the disease, tinges the stools yellow.

The aphthous condition of the mouth, more than any other, is connected with the state of the alimentary canal. The bowels are highly irritable and prove to be loose and tympanitic, and the evacuations are liquid and of a bright green colour, resembling verdigris mixed up with water.

Owing to the insensibility consequent to the oppressed state of the brain in typhus fever, the bowels are inclined to be costive, as also the bladder to retain its urine, except in the last stage of fatal cases, when the powers of life are prostrated and a general dissolution is about to close the scene.

Diarrhœa and tumefaction of the abdomen are often imputed to debility of the tunics of the intestines in common with the general prostration, rendering them incapable of contracting on their contents. This, I suspect, is a mistaken pathology, for in numerous instances of cachexia and death from pure debility of the general system, neither tumefaction nor diarrhœa are ever witnessed, and the intestine

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are of all the organs the most tenacious of life and the last, according to Richerand, to part with their vitality. Diarrhœa, as already explained, is owing to the contents of the bowels, the acrimonious fluids and the result of chemical affinities.

Causes.—In considering the remote causes of typhus fever, I shall adhere to the old division of predisposing and exciting, a division clearly founded on the nature of things. Mercury, for instance, introduced into the system produces a peculiar train of actions called mercurial fever, of which it is the exciting cause.

Some constitutions will not be affected by mercury until its tone is reduced by venesection or some other depressing means. These, then, prepare the system, rendering it liable to be acted on by the mercury; hence these preparatory means are instances of predisposing causes. The distinction, then, between predisposing and exciting causes is very clear; the former induce a state of the system susceptible of impression, whilst the latter create the impression which constitutes the disease.

The predisposing causes of typhus fever are as numerous as the incidents of life; consisting of every means of deranging, depressing exhaustion by over-stimulation, or of disturbing the harmony of the functions, as cold, and excesses of every kind. These all operate by rendering the system unable to maintain its own healthy movement in opposition to that tending to be set up by the exciting causes. Whether the predisposing causes be applied before or after the exciting, the effect is the same. Cold, for instance, applied to a person filled with mercury, or with the typhus poison, will so derange the order of action in the functions, as to render the system unable any longer to resist their influence; and a salivation in one case, and a typhus fever in the other, will be instituted by the exciting causes waiting an opportunity to act.

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Exciting Causes.—The phrase *idio-miasmatic*, brought into use by Dr. Miller, of New-York, as expressive of the origin of typhus fever, is certainly meritorious and capable of maintaining its representation of a fact, that typhus fever does arise from a personal source—the opinion of Dr. Armstrong to the contrary notwithstanding. That human and marsh effluvia are identical, can neither be proved nor disproved directly, since they elude the sense and mock the science of chemistry. It is, therefore, only by inductive observation that we can arrive at a legitimate conclusion.

It is only necessary to advert to the writings of Huxham, Pringle, Haygarth, &c. to prove, that whenever mankind are crowded together in ill ventilated places, as in jails, camps, ships, and the habitations of the poor, typhus fever abounds; and in such situations, not one in five hundred has an intermittent fever. Moreover, taking a retrospective view of the epidemics of the United States, how often, even in the present autumn, have intermittents and remittents prevailed, when hundreds have been down on our right hand and on our left, and scarcely a solitary instance of typhus has been witnessed? If one source or cause produced typhus fever in ninety-nine cases out of an hundred, and another a remittent in ninety-nine cases out of an hundred, the conclusion is irresistable that the causes are as different as their effects. Human excreta are then one source or exciting cause of typhus fever, and another is said to be contagion.

When a young man returns fifty or more miles from camp to his father's house in the country, and sickens of typhus fever; and when the whole family soon after sicken of the same disease, it certainly appears like contagion, yet it is in appearance only. Typhus fever is produced by human effluvia, and whether from the healthy or sick, the effects are the same. Those from the healthy require to be rendered active by confinement and concentration, hence they seldom have an opportunity of becoming operative: whereas those from the sick are already concentrated and matured the moment they

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are thrown out, and the attendants, in removing them, *are infected;* and this gives rise to the idea of contagion. That those from the sick and healthy are identical, is proved by their effects, which always produce typhus fever, whether those confined labor under typhus, yellow fever, or broken limbs or fractured skulls; hence contagion, as an exciting cause of typhus fever, can have no place in its etiology.

Pathology.—As the question proposed is limited to the history, causes and treatment of typhus fever, it could not have been intended to exclude pathology, or the study of its nature, as altogether hypothetical.

Pathologists may be divided into two classes, localists and essentialists. The localists contend that fevers are always the effect of inflammation or local irritation. Doctors Clutterbuck and Chirac locate the inflammation in the brain; Tommasini in the nerves and neuriloma; and Broussais and his host of followers, in the mucous membrane of the stomach and small intestines.

The essentialists maintain the independence of fever on inflammation, and limit the number to five, which they call essential fevers; these are inflammatory, bilious, mucous, adynamic and ataxic. Some of the most respectable physicians, both in Europe and America, are among this class.

Of the essentialists some were solidists, some humoralists and some may be called universalists. Doctors Cullen, Brown and Darwin were noted solidists; Fordyce was a universalist, and the late Dr. Burne is endeavoring to revive the humoral pathology. Speaking of typhus fever, he says, "that its nature is a morbid condition of the blood, produced by the operation of the primary cause."

In order to arrive at a knowledge of the pathological effects of idio-miasmata, we must examine the changes which are daily manifested by those compelled to receive them into their system. In such subjects the poison is slowly insinuated, and its effects imperceptibly take place; listlessness, indifference and languor are first evident; then prostration and pain gradu-

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ally succeed. Blood drawn at this period is darker than usual, and though it put on the buffy appearance it does not coagulate so firmly as in health. I once saw blood, after standing an hour, a homogeneous fluid and dark mass. The action of the heart is weakened, and the blood accumulates in the veins; hence the primary effects of idio-miasmata are debility of the solids, and a change in the condition of the fluids, rendering them less nutritious, and primarily less stimulative to the heart and arteries.

The blood is the natural stimulus to the whole sanguineous system, and the *pabulum vitæ* to the whole fabric. The quality of the stimulus being changed, either by the addition of foreign articles, or a metamorphosis of its own constituents, new phenomena must result. Or the stimulus remaining unsettled, and the condition of the vital principle being changed, new phenomena would be equally produced. Now in typhus fever both the condition of the living fibre and the stimulus being changed, the great question, in a theoretical point of view is, which is the primary effect of the remote cause? The solution of this difficulty carries us back to a second, on which the first totally hinges. Do the essential or exciting causes of typhus fever enter the circulation, or act by a direct impression on the brain, through the intervention of the nerves of the part to which they are applied. On this head the profession is much divided. Some conceive that the seeds of the fever enter the circulation through all absorbing surfaces; and others, that they take the road of the stomach; whilst others, again, deny that they ever enter the circulation, but make a direct impression on the brain and nervous system. The celebrated Dr. Johnson of London, who is neither a contagionist nor non-contagionist, in like manner, thinks they operate in both ways, but that in general they enter the circulation through the absorbing surfaces. Leaving men and their opinions, let us search for facts. In more than one instance I have known a retained placenta to produce genuine typhus fever without any evident inflammation in the uterine

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system; hence the putrid colluvies must have entered the circulation. A few years ago a number of fatted cattle were driven into one of the New-England cities; and having been pressed too hard in a sultry day, they became overheated, and some were unable to stand. In this condition they were butchered, and the consequence was a severe typhus fever in nearly all who partook of their flesh. Besides, putrescent animal food is allowed by all to be capable of producing the disease. In such, as in the former cases, the materials must enter the general circulation. Against this opinion it may be urged that many instances are recorded where subjects have dropped down almost lifeless from the causes of fever which, of course, could not have entered the circulation. These, however, cannot be considered cases of typhus fever, for in such instances where the disease does succeed, it is not developed until several days after the occurrence. The introduction of morbific agents into the circulation being admitted, constitutes the first link in the pathological chain of typhus fever.

The next question is, do these morbific materials change the condition of the blood directly, by a process similar to assimilation, or indirectly, by actions on the living fibre, whose response produces the vitiation of the fluids. By examining the modus operandi of animal poisons, we find they all operate by entering the circulation, and produce death by dissolving or otherwise directly changing the condition of the fluids. The poison of the *crotalus horridus* and *boa crotaloides*, or rattle snake, and bastard rattle snake, effects this change in a few hours, covering the body with large maculæ from the effusion of dissolved blood under the cuticle. Nor is the dissolution of the blood the effect of vascular action, for this is instantly reduced. Besides, every mountaineer knows that a tight ligature prevents the fatal catastrophe, which could not be the case did the poison operate through the intervention of the nerves. Hence it may be fairly inferred, that the causes of typhus fever, being animal poisons, operate in a manner

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peculiar to such agents, viz: by primarily changing the condition of the blood, and thus constituting the second link in the pathology of this fever. The poison being more or less concentrated and the system more or less capable of opposing, the discharge, accounts for the interval of incubation or generation of fever.

The doctrine of the unity of the action constituting fever, and of all agents differing only in grade, is no longer deemed tenable, for it is admitted by all essentialists that fever is modified by the causes producing it. Even Monfalcon, the most strenuous localist, observes, "Les fievres intermittentes de Walcheren ressemblant presqu'un rien a celles de Breaken, situe sur l'autre rive de l'Escaut au temoignage de M. Ferrus. Les fievres des Marias Pontius different des celles qu, on voit aux Antilles, et celles des Marias de Rochefort, de celles de la Brenne."

The circulating mass, the universal stimulus and source of life being changed, corresponding change of action and debility are the consequences constituting the third link in the chain of typhus fever. This new movement set up throughout the system produces new and modified results or morbid secretions, which by entering the circulating mass still further corrupt its qualities. Thus having again acquired new properties, new actions are called forth and new phenomena produced. In this manner effects become causes, until typhus fever is fully developed.

If the power of the different organs are properly balanced, a general and uniform commotion ensues. We know, however, that there is not only an acquired but a greater natural inability in particular textures of some individuals to resist disease. If, therefore, any organ is naturally proportionably less vigorous than the rest, or is rendered so by former disease, it gives way first, and congestion, inflammation or disorganization ensues. The delicate, complicated and important organs are most readily affected; hence the brain, nerves and mucous membranes manifest more or less inflammation

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in almost every instance. Inflammation having been once kindled up, becomes a rallying point of the disease, and an additional source of irritation and exhaustion, influencing the character of the phenomena. After death, traces of inflammation are generally found in some parts of the system, most frequently in the encephalon, where effusion is usually found in the ventricles and between the arachnoid and pia mater, with fulness of the sinuses and large veins. Next to the brain, the mucous membrane of the alimentary canal, trachea and lungs seems to have suffered. The pleura, heart, and many other parts, frequently bear unequivocal marks of inflammation.

To conclude this part of the subject, I will just recapitulate that the essential cause of typhus fever is an animal poison, whether gaseous or not is immaterial. This entering the circulation effects a change of condition in the whole mass.—As they depart from their natural state they produce a corresponding departure of action, the usual precursors of fever. The formative process of secretion is perverted and nutrition suspended, and debility ensues. These conditions, debility and change of condition in the fluids progressing, the irritation breaks the restraint maintained by healthy over diseased action, and fever is the result. The exciting cause is sometimes sufficient of itself to produce all these changes; yet the morbid process may be accelerated by a sudden cold or any other predisposing cause. The general commotion having been instituted throughout the system, inflammations are next kindled up, producing more or less an inflammatory participation of action. The excitement continuing, provided no important part becomes disorganized, exhaustion soon follows; the action subsides and a state of collapse succeeds, and a general apathy prevails. After a little repose the system rallies and again succumbs, constituting paroxysms; and in this manner the disease may continue an infinite length of time. Finally, the living fibre becomes habituated to the morbid or acrimonious fluids, when like all other agents they

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cease to produce an effect, and the vital principle, the *primum mobile* of the system begins gradually to substitute its own movements; the secretions begin fully to act, a little moisture is discovered in the mouth, a little perspiration on the skin, and the effort slowly increasing, if uninterrupted, rises up at length into perfect health.

On the other hand, the fluids become so greatly changed as to create a most morbid impression, and the living solids so powerfully resist their action that a violent general commotion ensues, and inflammation, disorganization or exhaustion and death result. At other times the quality of the agent is such as to extinguish directly the vital principle with scarcely any response of action.

Prevention.—Although prevention does not come properly within my province, yet the importance of the subject presses so strongly on my mind that I cannot forego the opportunity of noticing a serious error.

What I allude to is, the practice of recommending ardent spirits and medicines as preventives of fever. Although a glass of brandy may give a momentary spur to the energies of the system, it is at the expense of subsequent exhaustion, when the person is debilitated, and in a condition the most favorable for the evolution of disease.

Medicines, also, if drastic, as emetics and carthartics, often break down the vital opposition to disease, and enable the morbid process at once to institute its peculiar movements. Dr. Nathan Smith says, he has known an emetic to bring on a typhus fever in persons only slightly indisposed. The only course of prevention is regular and nutritious meals, a due quantity of sleep, confidence and an equanimity of mind which knows no fear.

Treatment.—However short an inflammatory or an intermittent fever may be cut off, typhus fever cannot be arrested by any bold stroke. This is evident from its pathology, and is in accordance with experience; for although some may pretend to have "nipped it in the bud," the more candid part

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of the profession are willing to confess that they have never cut short a single case of typhus. In managing this disease, therefore, we can do no more than prevent, ward off and oppose certain morbid conditions.

According to the foregoing view taken of typhus fever, we have to encounter, 1st, a vitiated condition of the fluids; 2d, a general febrile commotion; 3d, phlogosis; and 4th, debility.

In the treatment of typhus at the bed-side, these conditions are not to be considered and attended numerically and successively, but simultaneously and continually from beginning to end.

1st. *The vitiated condition of the fluids.* This state cannot at once be corrected, we must therefore prevent every accession of cause. For this purpose, external and internal cleanliness and purification must constitute the primary step, and throughout the whole disease this one grand maxim must never escape, for a moment, the eye of the practitioner, viz: without external and internal cleanliness no person can recover from typhus fever.

After casting our eyes about the room and surveying the bed and body clothing, with a reference to cleanliness and fresh air, we must turn our attention to the *primæ viæ.*— Every corrupt material should be removed as soon as is consistent with the economization of the patient's strength. If there are evident indications of a foul stomach, nausea or acid eructations, we must commence with an emetic. Not only at the commencement, but at any time in the course of the fever, emetics may be advantageously resorted to whenever they are indicated; and it is almost unnecessary to add, that ipecacuanha should be selected. Dr. Burne, probably fearing their debilitating effects, says they should never be used. If properly chosen, timed and managed, they frequently have an effect directly the reverse of this. I have known patients so much relieved by them as to request their repetition.

Another and more indispensible means of cleansing the ali-

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mentary canal are cathartics, in the selection of which much discretion is necessary. At the commencement, and sometimes during the course of the fever, the biliary apparatus is surcharged, as is evinced by a muddy, yellowish colored skin, yellowness of the eyes, tongue, &c. In the early stage of the complaint there is also more of a general inflammatory tendency of action; hence mercurial purges are indicated.—A scruple of calomel may be administered at first, perhaps a few times; and afterwards 6 or 8 grains may be exhibited at bed time, and gently cleared off next morning by some mild laxative. Frequent mercurial purges should be avoided as debilitating and unnecessary. A salivation is of no use, unless it occurs almost spontaneously. A fever capable of being supplanted by a mercurial action must be one devoid of danger. Ptyalism is generally the effect and not a cause of the subsidence of action. Although Dr. Burne condemns the internal employment of mercury, he strongly recommends its external use in all cases in which the brain is particularly affected. "Mercurial friction, says he, has produced more rapid and favorable changes in severe cases of the adynamic fever, than any other remedy I have ever seen administered. The average quantity to be rubbed in is half a drachm of the ung. hyd. fort. twice a day."

Calomel, he observes, produces ulcers in the bowels; and from beginning to end, he gives rhubarb in preference to all others. As typhus seldom terminates short of 14 days, there must occur frequent changes in the condition of the alimentary canal, and these must naturally influence the choice of cathartics. A loose state of the bowels will require castor oil, rhubarb, or magnesia, whilst a torpid state is best relieved by an infusion of senna, with manna and sup. tart. Potass. The stage of the fever and state of the system must also enter into the consideration. The saline carthartics produce copious watery stools and powerfully debilitate, consequently they should not be used in the latter stages of typhus fever. Notwithstanding laxatives are daily administered,

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vitiated secretions are continually found in the alimentary canal. Being of different qualities, sometimes acid, and at other times alkalescent, they require to be corrected by different and even opposite measures. Some writers recommend acids strongly, and others prefer alkalies altogether, and both on the score of experience. Both must be right and wrong occasionally; hence neither course should be pursued exclusively, but alternately. Carb. Potass. may be administered in doses of 4 grains every two hours for two days; and then the citric, or tartaric acids may be substituted as long. This alternate use of correctives I have known to produce the most salutary effect. As a corrective, in all severe and putrid cases, charcoal and yeast are almost indispensable. The former given *in doses* of a tea spoonful every three hours, will correct the condition of the bowels and sometimes supercede the use of laxatives. The latter is usually administered in doses of a table spoonful every three hours. The same end may be answered by muriatic acid.

Throughout the whole course of the disease the bowels should be well lubricated with some mucilaginous or farinaceous drinks. They not only protect the inner surface but dilute and diminish the acrimony both of their contents and those of the blood vessels.

To obviate the vitiated condition of the fluids, not only the internal but the external surface equally demands our attention. The peculiar odour of the patient in typhus fever, arises from the morbid secretions from the surface of the body. These should be daily or semi-daily removed by ablution, and the patient as often enveloped in fresh linen.

As gaseous impurities are received into the system through the lungs, the atmosphere of the room should be kept constantly pure by ventilation; and as few persons as possible should remain in the sick apartment, which should be kept clean, and the floor ought frequently to be sprinkled with vinegar.

2d. *The general febrile commotion.* The action constitu-

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ting typhus fever, is called by some, "excitement," a term certainly objectionable when applied to designate the general commotion of typhus fever, for contra-excitants will not arrest its progress. The phrase, "irritation," is more applicable; for the agents producing it do not stimulate or elevate natural action, but pervert and destroy, independently of vascular response. Contra stimulants and stimulants increase the intensity of movement, causing it to pass on to inflammation. The frebile commotion may therefore be moderated, and thus kept within due bounds, for although we cannot arrest its progress we may diminish its vigour of movement by the abstraction of blood, and by removing all concurring causes.

For the purpose of reducing the intensity of action, bloodletting has been recommended by many eminent practitioners, and that too with a liberal hand. In plethoric habits the loss of a moderate quantity of blood is sometimes advisable and even necessary; but such copious effusions as Dr. Armstrong in particular recommends, are, in this country at least, highly dangerous, except in phlogosis of some important viscus.—Dr. Nathan Smith observes, "so far as I can judge from my own experience, bleeding does not produce any considerable change in typhus; the pulse is not rendered slow by it, and after the faintness, if any is produced by the operation disappears, the heat is not diminished." And Dr. Good who took a mathematical survey of the practice, observes, "the sum of medical opinion upon a trial of three centuries is against it. The practice has occasionally started into popularity, but it has never been able to establish itself." There are cases, however, especially in young persons of the sanguineous temperament and full habits, in which blood may be drawn with advantage, even with reference to the general disease; but on this point each case must speak for itself.

To answer the same end blisters are a favorite remedy with many practitioners, nor is there on this point, more uniformity of opinion than on that of blood letting. Whilst one phy-

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sician condemns their application in every case of uniform actions, another insists that they are useful under such circumstances, converting the general into a local disease. When a patient is smarting under a half a dozen at once, I think he must entertain the same views; yet after all this local irritation and teazing, the fever continues its progress. Except in particular accumulations and consequent local deficiencies, they cannot be of any service. In such cases applied to the cold extremities they equalize action and are of great utility, but in typhus fever, unattended by inflammations or local accumulations, they always act injuriously.

One of the most distressing concurring causes is excessive heat of the skin. This aggravates exceedingly the irritation already existing, and should be, therefore, perseveringly removed. This is to be done by cold affusion, cold sponging, and fresh linen. Cold affusion, notwithstanding its acknowledged utility, is but little resorted to in private practice. Popular prejudice is hard to overcome, and in this country at least, a long time must elapse before the practice can become general. As a substitute, cold sponging may be resorted to *during* the paroxysms whenever the heat is above the natural standard and the skin dry. The arms, the legs, and body, may be sponged alternately as long as the heat continues. The linen, beds and pillows should be frequently aired, otherwise they will constantly foster the disease.

To answer the same end diaphoretics are frequently prescribed. The most useful one, by the by, is cold effusion. The Pulvis. Antimon. Spts. Mindereri. and Dover's Powder are the most common articles selected; and when a perspiration can be induced by these or other gentle means, and becomes generally diffused, it affords considerable relief, especially to that universal soreness so often witnessed in this fever. All heating mixtures, opiates, even Dover's powder, and camphorated preparations are injurious in the early stage of typhus fever. Spts nit. dulcis is a useful addition to the common

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beverages and serves to pass off the tediousness of time which often drags heavily along.

3d. *Phlogosis.* Inflammation of particular organs may exist cotemporary with the disease itself, or they may be developed any time during its progress. To reduce these local affections in the early stages, blood letting is generally required. It is said by European physicians that we must proportion the quantity of blood to the urgency of the symptoms. The very reverse of this, strange as it may seem, is in typhus fever sometimes a rule. The pneumonia typhoides of this country was an inflammation of the lungs and typhus fever. In this disease, blood letting was fairly tested, and it was found undeviatingly to be injurious in proportion to the *urgency* of the case. In mild forms it was even beneficial, but in all severe ones it proved fatal. Nor was its failure for want of quantity, for some actually died under the operation. And in no instance was the pulse known to rise on letting the blood flow.

When bleeding is determined on in typhus, it should be drawn cautiously, lest we abstract that vital support at the beginning which is imperiously required in the latter stages of the disease. Ipecacuanha emetics, mild purging, gentle sudorifics and free blistering will generally remove any inflammation which may occur in typhus fever, and may supercede blood letting except on the very first days of the disease.

When the head manifests symptoms of unusual excitement, is hotter than the rest of the body, and aberration of the intellect, or delirium, with violent throbbing of the carotids ensues, the head should be disencumbered of its hair and kept constantly wetted with cold water. In a violent case I ordered the water poured on, and the attendants finding the patient calm only when it was in a stream, used twenty-five pails full in twelve hours, and a recovery was soon effected. At the same time blisters must not be neglected. The practice of shaving the head and applying them to this part is injurious, as might have been inferred from the proximity of the disease

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to the scalp, which is actually partaking of the morbid process within; hence blistering that part is to add to the irritation. But applied to the spine they are highly serviceable. I have more than once known a delirium to cease immediately on the vesication of fifteen or twenty inches over the spine. This part may be freely blistered in every case, and being rather a depressed than prominent situation, they are attended by very little inconvenience to the patient.

In inflammation of the mucous membrane of the alimentary canal, we are told by the solidist that blisters are injurious; merely, I suspect, because they seem to act contrary to leeching. But in an epidemic which prevailed in this section of country this last summer and autumn, gastro-enteritis was a constant attendant; and I found blistering even the whole abdomen eminently beneficial, although purging, as they tell us, was generally injurious. In short, every location of phlogosis in typhus fever admits of alleviation by blistering, even the kidneys and bladder.

4th. *Debility.* This is the most important part in the consideration of typhus fever, for the views entertained of it by the practitioner, constitute the grand pivot on which hinges that part of his treatment which issues in the life or death of the patient. On this subject the greatest discrepancy prevails, even amongst the most leading pathologists of the present day. Dr. Burne considered debility the very essence of typhus fever. The celebrated Dr. Good, and most of the eminent writers of the present day, both of the old world and new, entertain the same opinion, France and Italy excepted.

It is now well established that there are agents which directly destroy the vital principle, and among such, as already observed, are the causes of typhus fever; hence a deficiency of vital power is cotemporary with the disease itself; and this must be kept continually in view in order to treat the disease successfully. And although we may bleed, purge and give emetics, still this idea of the final want of

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vital power must be ever remembered. Our blood-letting must be duly limited, and our emetics and laxatives carefully and suitably selected.

The next question which arises is, by what means can we directly support the powers of life, or raise them when sinking?

The solution very naturally divides itself into two sets of means, regimen and medicines. The professional study of physic dwells so incessantly on medicines, that they are continually obtruding themselves into our minds, sometimes to the exclusion of regimen. The idea of medicine too, is so imposing to people generally, that they are led to expect too much from its use. They are, therefore, dissatisfied, unless something of the kind is almost hourly administered. Hence the natural efforts of the system are continually frustrated. Except in extreme and critical cases, this rapid succession of medicines should be avoided, and time allowed, after clearing away obstructions and concurring causes, for the powers of life to act. The natural efforts of the system should be supported by a continual supply of nutritious materials, as the decoctions of mallows, elm, flaxseed and wheat bran. Panada, rice, arrow root, sage, tapioca, roasted apples, &c. form suitable materials for diet; and some one or more should form the patient's constant drink, instead of those vegetable infusions so copiously used.

Although animal solutions, as broths, have the sanction of Dr. Good, they are certainly injurious according to my observation, except under particular conditions of the alimentary canal. I have often recommended them in typhus fever, and always with the same injurious effect, increasing the thirst and dryness of the mouth and skin.

Under the head of support by regimen, may also be ranked fresh air. It is that food of all others the most indispensably necessary, and without which all other means of support will be unavailing; and this cannot be too often repeated in considering typhus fever. It not only cuts off

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a source of vitiation and debility, but it directly supports life by a stimulus momentarily necessary for our very existence.

The second class of means employed to support the system is the train of tonics; and here arises the greatest embarrassment, especially to the junior members of the profession, who have not yet acquired the tact of adroit managers. At the head of this class stands the cortex cinchonæ, the most important tonic in the materia medica, and of course, demanding the most thorough investigation in typhus fever. On a point of so much importance the opinions of the leading medical writers ought to have due influence. Dr. Burne, who has taken immense pains to elicit truth by careful and unbounded observation and research, comes to the conclusion, that "Bark is as serviceable in arresting the progress of adynamic fever, as it is in arresting the progress of an ague, and it may be most advantageously employed when the fever has been some time on the decline and distinct remissions occur, and also during the stages of convalescence." Dr. Good observes, "Where the stomach is irritable and will not retain it, or so feeble in its secernent powers as not to digest it, and particularly where there is a tendency to local accumulations, it ought unquestionably to be avoided till these symptoms are subdued by other means. *But where there are no such objections it cannot be begun too soon, though it should not be pushed in such large doses as in the more rapid course of yellow fever.*"

Dr. Armstrong, on the contrary, boldly asserts, that "In every form of continued typhus, bark is prejudicial; and I am bound thoroughly to protest against its exhibition, since it has the sanction of some of those schools where ancient rather than modern medicine is taught and supported." Dr. Carmichael Smyth also observes, that he found, on extensive trial, that bark was uniformly injurious in every form and under every dose, and whether given in small or large ones, the injury was always proportionate. On this point

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it may well be said, "how shall we decide when Doctors disagree?" Notwithstanding this violent clashing of opinions, by a careful attention a reconciliation may in some measure be effected. We know full well that there are cases of erysipelas in which bark is not only serviceable but indispensably necessary to recovery; and we know also that there are cases in which it is absolutely fatal. This being a notorious fact, there may be, and unquestionably are, similar conditions in typhus fever, and the great desideratum is a discriminating eye. The fault is in the prescriber and not in the medicine. It is conceded on all hands, that tonics are useful in that condition called passive inflammation; and if there be such a local, there may be, by mere extension, such a general state; hence, if tonics are useful in one they must be in the other. But as much circumspection is necessary to discriminate between active and passive inflammation, so much scrutiny is required to distinguish between a general active and passive condition; and there being very few or no cases primarily passive, so there are very few or no cases in which bark is primarily demanded. But when these active local and general commotions are subdued by the means already pointed out, and the energies of life remain prostrate or seem to flag, bark is certainly very imperiously demanded. When, however, the edges and point of the tongue are red, and its surface covered over with a dry, brown or black scurf—when the skin is hot and dry, and the urine high coloured, bark will most assuredly aggravate, and if continued, certainly prove fatal, although at the time there may be no local inflammation. When there are evidences of this condition, no one would think of prescribing this article.

When, on the contrary, all local pains have been subdued by the means already detailed; when the local and general cleansing and purifying process has been fairly and duly persisted in; when the universal commotion and external heat have been mitigated, and the skin rendered soft and cool;

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when the edges and substance of the tongue are of a pale or light purplish hue, its breadth increased and the surface of the scurf smooth and somewhat moist; when the features are rather sunken than excited; when the pulse is less frequent and low, and the urine pale and turbid, we may venture the bark. If, however, the skin grows hotter, and the tongue more dry, and the pulse quicker and stronger, we may be assured the medicine has been injurious, and it must be immediately discontinued. Notwithstanding all rules, its administration must be viewed as an experiment, and ought carefully to be made, and its effects narrowly watched.

Wine is another tonic; and one too, more freely used than any other in typhus fever. It is certainly less injurious than bark in this disease, and its administration must be governed by the same rules and general considerations. If the tongue becomes moister and the pulse fuller and slower, the skin soft, and the patient more composed, its use may be persisted in for a few days. I would wish to inculcate one restriction more in the exhibition both of bark and wine, and it is, to continue them a short time only, and as soon as the system begins to rally and throw off the disease, to diminish their quantity and shortly to discontinue their use; otherwise some occult local inflammation will be kindled up.

The continuance of bark and wine has left many recoveries incomplete; and a cough, a pain in the side or head, has harrassed the patient for months. Some practitioners, even of modern times, finish all their cures with bark and wine; but both are generally worse than useless, especially during convalescence, for the buoyant elevations of the system when emancipated from the fetters of disease, require but a very limited assistance, and oftener stand in need of restraint, except in hospitals and ill-ventilated places. One puff of fresh air is worth more than a glass of wine or a dose of quinine. More frequently the inflammatory tendencies of elastic constitutions require the continuance of laxatives even during convalescence.

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The next important medicine in the process of support is opium, and concerning this article there is almost as great a diversity of opinion as in the case of bark. Some employ it almost from the very commencement, whilst others limit its use to the latter stages. Dr. Rush once observed that any fever might be rendered malignant by a sufficient quantity of opium; and I can safely affirm, that I seldom administered a dose in the early stages of typhus fever, without experiencing its ill effects, a dry tongue, thirst, &c. Dr. Good also supposes it "to be of less service in typhus than in many other species of fever." Dr. Armstrong observes of opium, "In a recent work, the pharmacologia of Dr. Paris, small and repeated doses of opium are recommended in typhoid or typhus fevers; but like many of the directions respecting the practical applications of medicines in that work, this is erroneous, and indeed so very dangerous, that if adopted it would generally prove fatal." Although Dr. Armstrong is a powerful advocate for large doses of opium in inflammations, his good sense and great experience convinced him of the injudicious consequences resulting from its use in typhus fever.

I have always observed that a sweat produced by opiate mixtures at the commencement of fevers, was followed by an aggravation of the symptoms. After evacuations, especially by the bowels, have been urged to their utmost extent, and the local inflammations reduced by appropriate means, a combination of opium and camphor at bed time has generally a salutary effect. On the whole, judging from my own experience, I am constrained to believe that he who uses the least opium in typhus fever will have the best success. To meet particular symptoms and conditions, it is indispensably necessary, and when its administration is demanded, we must make the best compromise we can.

The next article worthy a place under this head is camphor. It is certainly the least objectionable of any excitant, still if given too early in the fever it aggravates thirst and

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heat; and when the sweating consequent to its use is over, the skin is hotter and drier than before its administration. The beneficial effects of camphor are most beautifully displayed in that peculiar sinking which sometimes follows the operation of emetics and cathartics, evinced by a cold surface, sunken features and wanderings of the mind. In such a condition small doses of camphor, with minute portions of opium, often repeated, are preferable to wine and bark. The langour of the *vis vitæ* is more readily roused, and its energy better supported by camphor than by any other means; being more revulsive it excites a genial glow on the surface without materially disturbing the general circulation. Consequently, it may be used earlier in typhus fever than tonics generally.

Many other articles of minor importance are used as tonics, as ammonia, musk, ether, valerian, arsenic, capsicum, turpentine, cantharides, &c., which I shall pass over at present.

Of the bitter infusions, those of colombo and quassia have been most generally employed. In the latter stage of typhus fever they seem to support the tone of the stomach, and are therefore quite serviceable. The most useful, however, of this class of tonics, is the *eupatorium purpureum*, a plant deserving the attention of every American practitioner. It supports the system gently and permanently without heating; and its operation on the digestive organs is superior even to colombo. A botanical description is here unnecessary, of course.

Having gone over the subject as laid down by the conditions of typhus fever, it only remains to notice particular conditions which sometimes occur out of the usual order of the disease.

Diarrhœa.—The accumulation of offensive fœces in typhus fever is very great, and the antiseptic powers of the gastric and other secretions being lost or reversed, they are left to the play of chemical affinities, accelerated by the excessive heat

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of their situation, hence if they are not daily removed, or their constituents changed, the most acrimonious, acid, alkaline or anomalous materials must result. These acting on the delicate coats of the stomach and intestines, inflammation and diarrhœa ensue. It becomes therefore, necessary, if we wish to avoid such consequences, to remove the causes, or correct or destroy their activity; hence the propriety of the laxatives and correctives as already stated. But in clearing them off we must not run into the opposite extreme, else our means will produce the very end we are wishing to avoid.—To steer clear of these difficulties after the first stages of the fever are passed, we may interpose some mild tonic whose action will be confined to the alimentary canal; and for this purpose an infusion of quassia with a little soda, or what is better, an infusion of the leaves of the eupatorium purpureum may be given. When diarrhœa has actually supervened, it generally yields to laxatives of castor oil or rhubarb, followed quickly by an opiate and camphorated powder, with a free use of gum arrabic, arrow root, lime water, &c. Another most excellent medicine for diarrhœa is Dr. Hope's formula of nitrous acid and tinct. opii. camphorata.

Aphthæ.—This is an extremely unpleasant occurrence, indicating a deranged, debilitated, yet inflamed condition of the mucous membrane of the alimentary canal, especially of its superior portion. I cannot help suspecting that this aphthous condition is nearly allied to the diphtheritic inflammation of Dr. Bretonneau of Tours. It commonly supervenes on moderate cases of typhus fever which have been lingering or fluctuating. It is not attended by any great derangement of the abdomen, although the bowels are irritable and prone to be tympanitic. It never appears until the tongue begins to clean off and the pulse to moderate in frequency. At first the whitish, glutinous matter which is observed in the mouth is supposed by the attendants to be milk or something the patient may have eaten; and when the apthæ appear they continue to spread and recede until the exhaustion is great; there

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is a total disgust of food, and an effusion into the ventricles of the brain is the invariable consequence unless the disease is arrested by art, for nature knows no cure for this condition.

This occurrence never terminates spontaneously otherwise than by effusion in the ventricles of the brain. To prevent this condition, mild vegetable bitter infusions, as recommended to prevent diarrhœa, should be administered under the same regulations.

Treatment.—I tried, in one case, emetics of Sulph. Zinci, and of Ipecacuan; Ipecacuan in small doses, often repeated, bark, quinine, and sulphuric acid, nitric acid, muriatic acid and the alkalies in succession, occupying more than two weeks. Local applications often checked the formation of the aphthæ; but they were productive of no ultimate benefit. Considering the disease as originating in that portion of the mucous membrane which lines the stomach, I determined to make such an impression on the fauces as should reach that organ, between which and the latter such a strong sympathy exists. For this purpose I dissolved Sulph. Cup. 2 drachms in about 8 oz. of water for a gargle. The application produced excruciating pain, but the next morning after the second trial, every aphtha had vanished and the mouth put on a clean, red appearance. The application being discontinued, the aphthæ, after two days returned. The gargle was repeated, and its strength reduced daily, until a perfect cure was effected. The patient observed that he could distinctly feel every application, to use his own words, strike down to his stomach.

Bloody Stools.—When blood is discharged with the stools in typhus fever it is always to be viewed with a suspicious eye. Under this circumstance cathartics and even laxatives, unless of the very mildest, are often dangerous; rest, light diet, fresh air, a steady horizontal posture and cold acidulated drinks are generally sufficient. In excessive hemorrhages a combination of acetas Plumbi and opium is necessary, and in doses proportionate to the urgency of the case.

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Art. X. Directions *for the Establishment and Government of a* Lunatic Asylum. By M. Brierre de Boismont, M. D., *of the Faculty of Paris and Knight of the Legion of Honour.*

[Translated from the French by E. Quincy Sewell, M. D.]

[The following paper received the prize offered in 1834, by the Society of the Medical and Natural Sciences, at Brussels, for the best memoir on the establishment of a Lunatic Asylum—its location—the disposition of its grounds—its internal arrangements—government and Medical attendance. The facts collected in it would be valuable at all times, but they acquire additional importance at a period when the State of New-York is about constructing an extensive asylum for its insane poor. In the hope that some of the suggestions may prove useful, the present translation has been prepared and communicated to the Committee of Publication.]

Experience has long since demonstrated the necessity of secluding the insane in asylums devoted to their safe keeping and proper attendance. But although all enlightened persons agree in the propriety of this, few are able to furnish the practical details that are indispensable to its success. There is scarcely a building, which in all respects, can be considered as a model, and we are obliged to visit a number, in order to make a selection of what appears most useful in each. Many indeed of the modern asylums have been convents, altered or enlarged for the present purpose. Hence little uniformity of plan exists, and none indeed with reference to the main object of the establishment.

It is evident that a knowledge of the nature of the disease and its numerous and varying forms is essential to a proper construction of the building. No one, of course, can be better fitted to furnish a good plan, than a physician who has long studied the subject of insanity, and been familiar with its victims. The monomaniac—gay or sad—the turbulent, furious maniac—the individual disposed to suicide—the convalescent—all require to be separated from each other, and to be removed according to the shifting condition of their

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complaints; yet they also should be so arranged, that all can be readily watched. Certainly that establishment is best, which can be inspected at a single glance.

The principal subjects that I shall consider in this memoir will be, the plan of the building, an enlightened government, proper attention to the general health and skilful medical attendance. In preparing it, I have not relied merely on my own experience, nor even on the observations made in visiting most of the principal asylums in Europe; but I have derived much information from physicians distinguished in this branch of medicine, as Dr. Esquirol, Dr. Desportes, Administrator of the Hospitals of Salpetriere and Bicetre; Dr. de Bouttevillle, Director of the Asylum of Saint Yon and Dr. *Lelut, physician* at Bicetre.

Situation. Arrangement. Government.

A building, whose principal aim it is to seclude a number of individuals from social life, should evidently not be erected in the midst of a population. Insanity in a vast majority of cases, owes its origin to our vices, our passions, or our misfortunes. Let us remove its subjects from the places which remind them of their unhappy condition.

If we erect our building in a city or near its gates, that quiet which is so indispensable, will be wanting. A single fact will illustrate the truth of this remark. When a stranger appears for the first time among a number of insane, a general excitement occurs, and often cries or rage shew how prejudicial it is. What physician has not observed the benefit of tranquility and silence? Combined with humane treatment they are often sufficient in a few days to calm the most violent transports. We shall presently see that certain European nations have well understood the importance of this, in the otherwise imperfect construction of their asylums.

The country then, *at a little distance from the city*, is the most proper situation for a lunatic asylum. The proximity is of importance, as it enables us easily to procure provisions. The nature of the soil also deserves examination. It should

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not be moist, lest fevers, dysenteric affections and dropsical complaints supervene. Several Milanese physicians however, are of opinion that humidity is not prejudicial. They assure us, that intermittent fevers, which are common in Milan, have proved useful to maniacs, and indeed in some cases have induced a cure. But such a belief, although it has the sanction of antiquity, does not deserve any countenance.—The furious form but a small proportion of the whole number, and it has not been supposed that the melancholic or the imbecile are in any degree favorably affected by this complaint. Is there not reason, on the other hand, to ascribe the petechial fever, which is in some measure endemic in the Milanese, to the moisture of their soil?

A dry situation is then one of the first requisites for a lunatic asylum, and to ensure this the soil should be sandy.—Besides being the most healthy, we need dig only a few feet in order to lay a foundation. An abundant supply of water is also extremely essential. The more freely that it can be used by the insane, the better will they be in every respect. In no establishment of the kind is water more liberally supplied than in that of St. Lazarus, near Reggio in Modena. The whole domestic arrangement of an asylum is benefitted by this abundance, and above all, cleanliness is greatly promoted. We must remember too, that the pipes conducting it into the building and through its various apartments be not of too small a diameter, lest from being accidentally choked, the supply is intercepted, and the physician, as almost daily happens in the hospitals of Paris, is obliged to refuse baths, when they are actually wanted.

The grounds should be undulating. If they are too level, they fatigue by their monotony. Natural and artificial elevations, multiply the points of observation. There is more than one lunatic who evinces his delight with the beauty of a landscape and monomaniacs will pass hours in observing it. But above all, the grounds should be extensive, shaded by numerous trees and defended in many places from the heat of

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the sun. The vicinity of groves invites to exercise, and we breathe more freely under their protecting foliage. A large number of insane do nothing else; they love to walk or recline for hours in some favorite spot. It is hence necessary to have extensive shaded promenades. And the more numerous these are, the less will coercive measures be required. The maniac dissipates his strength in exercise, and many owe to it, that rest and sleep which the most powerful narcotics cannot procure. And here we may observe, that after the strength is dissipated or exhausted, medicines prove useful, which have no effect when the system is highly excited.—The air, the verdure, the covered alleys, the green fields and the flowers are then to be reckoned among the hygienic means useful to the insane. But extensive grounds afford additional advantages. They allow us to devote certain portions to useful purposes, and also to conceal from the inmates the watchfulness we exercise over them.

The exposure of the grounds is no less worthy of attention. If it be towards the south, sheltered by a rising hill in its vicinity, it will not be subject to the force of the winds, and particularly the north wind, which is productive of disease to the insane. The buildings should face the east, the heat of the south wind in summer, and the cold of the north in winter are thus equally modified, while the fresh morning air is most agreeable in ventilating all the apartments.

The ground being thus selected, in a dry spot, well provided with water, well wooded, exposed to the south and sheltered from winds, the next question is, what plan shall we adopt in the construction of the building. The investigations of M. Esquirol appear to show that one, with a ground floor only, is alone proper as an asylum for lunatics.

How many inconveniences indeed result from having a building several stories high. Iron cages and grates, bolts and locks are its necessary accompaniments. From its resemblance to a prison it infuses terror into the minds of its inmates, and particularly aggravates the sufferings of the mo-

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lancholy monomaniac. In addition to this the superintendence is infinitely more difficult. The height of the stairs to be climbed, renders the insane unwilling to indulge in their walks. While in the individual disposed to suicide, the depth down which he looks fosters his unhappy propensity. All those who are affected with general weakness, with commencing paralysis, the demented and the idiots, if placed in the upper stories, can with difficulty be brought down into the open air. We have often seen them remain constantly in the halls. Finally, the prevalence of diseases of the heart so common in the insane, is another reason why a building with a ground floor should be preferred.

All these objections are obviated by a building with a single floor. Every thing resembling a prison may in a great measure be dispensed with. The cells or bedrooms being on a level with the ground, invite the inmates to indulge in walking. They see their neighbors pass out for this purpose, and the sight induces them to do likewise. The inspection is more readily performed, and fewer persons are needed for this duty. There is also every facility for ventilating the apartments.

All the cells and halls should, however, be constructed over vaults or kitchens that admit a free current of air. Without these the ground floor would be soon saturated with moisture. Mildew covered with an efflorescence of saltpetre would discolour the flooring and cause it, as well as the beams resting in the wall, to decay. It is only by the assistance of dry and well ventilated vaults that the story above can be effectually secured from dampness.

Having carefully detailed M. Esquirol's arguments in favour of buildings of only one story, we now venture, in the hope of meeting with the approval of scientific men, to explain the modifications which may be applied to his system. It cannot be denied, that a lunatic asylum constructed according to his ideas, demands a very large surface of ground.—The outlay at the onset is therefore so great, that the local

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authorities are immediately disposed to reject the plans laid before them. The expense is not confined to the purchase of large grounds alone, but extends to the costs of building which are so much the greater, since many separate pavilions require to be erected. All these disadvantages may be avoided, by simply adding a second flat or story, and besides being more airy and cheerful than the ground flat, its construction would diminish the expense to a third of the sum required in the former case. If on the score of economy the proposed alteration be found advisable, nothing now remains but to examine how far it will agree with the arrangements hitherto adopted in the treatment of the insane. For this purpose, it is necessary to ascertain whether lunatics of every class are compelled, at the peril of losing their health or life to remain on a ground floor. This subject admits of several distinctions. There can be no doubt, that agitated and furious maniacs, the melancholy, the suicidally disposed, the partially paralytic, the mischievous and epileptics who are liable to a frequent recurrence of their malady cannot reside in the second flat without great danger and inconvenience. The alienation of mind however, is not complete in these subjects and they form only a division, numerous it is true, but which does not embrace one half of the whole amount of the insane. The larger class, composed of the convalescents, the tranquil monomaniacs, peaceable maniacs, the demented, the imbecile not disposed to self destruction, and epileptics whose attacks are mild or occur at distant intervals, may with propriety occupy the second flat. With respect to idiots, we conceive that a part of them should occupy the ground floor. To the objection, that among these patients there are many who prefer remaining in the cells to encountering the fatigue caused by descending and ascending a flight of stairs, we answer, that the adoption of such vigorous regulations as we have seen in several establishments, will soon cause them to descend with promptness at the appointed hours, to the courtyard, the workshop or refectory.

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Another benefit connected with the second story is, that the patients can no longer avail themselves of the opportunities for escape which the columns of the covered walk afford.—When not occupied it may advantageously be used as store-rooms for drying linen, &c.

If the foregoing remarks respecting the elevation of a second flat are allowed to be well founded, the solid benefits resulting from it will in like manner be acknowledged. The establishment being more concentrated, the expenses are prodigiously diminished, while at the same time the superintendence is more certain and less extended. The only objections of weight that can be brought forward, relate to the treatment and safety of the patients. It has already been shown, that the classifications generally adopted will undergo no change whatever; that the insane will be transferred from one story to the other, according to the degree or progress of their disease, and lastly, that their safety can never be compromised in the slightest manner, since all those whose residence in the second flat might prove dangerous, will remain in the first or ground floor.

The kind of habitation more particularly suited to the convalescent affords matter for interesting enquiry. It is not improbable that by making another division of these more in conformity to their wants, the number of necessary chambers in the establishment might be still more lessened. Long experience has convinced us of the vast importance of moral means in the later treatment of insanity. Among these may be ranked, the permission granted to the convalescent to quit his cell for the residence of the director and physician. It is for him a sort of re-initiation into the duties of social life to which he is soon to return. Being under their immediate superintendence he is almost constantly in their company. His mind is soothed by kind and benevolent intercourse, and his judgment strengthened by coming frequently in contact with the domestics of the establishment. Of the truth of the foregoing remarks we are perfectly convinced, and therefore propose

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that accommodation for the reception of convalescents be made in the first or second flat of the director's residence, and in the wing parallel with the main building. The internal arrangement should consist of dormitories and cells.

By this means it would be easy to reduce anew the number of sections for the men including those of the epileptics and furious. The same division might be made for the women, but on account of the greater prevalence of insanity among them, the sections should be made to contain thirty instead of twenty beds each.

The preliminary points being now discussed, the next subject which presents itself for our consideration, is the plan or model upon which the building should be constructed. It has long been said, that the great desideratum in the distributions of a lunatic asylum is the rapidity with which its several parts may be surveyed. This object is gained in the *panoptic* construction of some penitentiaries in this country, but it is liable to the objection, that the acute angles formed in the approach of the edifice towards the central point, contract the cells in such manner as to render them unfit for the abode of the patients. The square form is most generally resorted to, and it is that which we now recommend. A window secured with iron gratings, should be made in one of the four walls, in order that the eye of the patients may repose upon agreeable objects. But in order that the desired result should not be frustrated, it should not open upon a road or thoroughfare, for they become exasperated at the sight of strangers and are apt to imagine themselves confined in a real prison.

The establishment should consist of three principal divisions. One of these should be in the centre and be occupied by the administration of the asylum; there should be a second story attached to it, and it should be subdivided into three sets of apartments, separated by two courtyards. In continuation of our plan, the first peristyle is allotted as the habitation for the chaplain, the chief physician, the medical students, the servants and the porter. In this portion are also

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the admission office, the reception room, the rooms for the guards, and the wardrobes. The second set of apartments receive the director, steward, apothecary, and assistant physician. It also contains the medicine room, and stores of cloth, linen, and domestic utensils of every kind. The vaults contain the kitchen, larder, bread closets, groceries, &c.—This arrangement, as it exists at Saint Yon, appears to us highly convenient. A cupola might be constructed over the second story, from which every part of the building may be seen. The last building which completes the paralellogram, embraces the chapel, common room, linen presses, bakery, laundry, (sink, washroom, depot of dirty linen, drying room, &c.) store of bedding, amphitheatre or operating room, dead room, butchery, charcoal room, reservoir and fire engine. If these buildings are not sufficiently ample, they might be extended from the sides. The style of architecture should be characterized by a noble simplicity. It must be remembered that it is the refuge for those afflicted with the direst calamity incident to our race, and that therefore much ornamental or sculptural work lavished upon its exterior would be in bad taste. In addition to the arrangements recommended for this building, there is another convenience existing in the asylum of Saint Yon, which in our opinion, possesses great value. At the entry of the house there is a large hall opening immediately upon a beautiful garden. The disposition of this part of the establishment is well adapted for visiting; the patients and their friends have sufficient room to walk about, and they are not incommoded by the presence of strangers.

A long corridor extending from either side of the second set of apartments serves to connect the pavilions or sections of the insane. These pavilions are nine in number, four on each side. The ninth, destined for the reception of the furious, is situated at the extremity of each wing. The same distribution applies equally to the wants of both sexes.—Having said that nine sections should be appropriated for each sex, it is proper that the facts and the classifications of pa-

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tients upon which this recommendation is founded, should be made known. In the French asylums the insane are separated into two grand divisions. 1st, *the curable*, comprising the monomaniacs, maniacs, furious, those disposed to suicide and some stupid and demented patients. 2d, *the incurable*, consisting of monomaniacs, maniacs subject to remittent, intermittent, and periodical attacks of their disease, the demented imbecile, and idiotic. To these two classes must be added the convalescent and epileptic; these are for the most part placed in the same hospital, but in different parts of it.

The following tables, from the registers of the Bicetre and Salpetriere, show the comparative number under each classification.

Bicetre, 31st December, 1824.

Insane.	Curable,	147.	{ 107 under treatment. 40 convalescent.
	Incurable,	268	
	Imbecile,	225	
Epileptics.	Curable,	5	
	Incurable,	183	
		828	

The curable cases here are as one to three and a half.

From Dr. Lelut's report for this year of the condition of the patients in the Bicetre, which he had the kindness to send us, it appears that the number is less than it has been for ten years past. The division only contains 752 cases, of which 168 are epileptic. The insane affected with general paralysis amount to 44. There are 110 idiots or imbeciles. The remainder consisting of maniacs and the demented, are in the proportion of one fourth and one fifth to the last. M. Lelut affirms that true monomania is excessively rare; an opinion which we ourselves advanced some years ago, in a pamphlet upon mental alienation.

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Salpetriere, 31st December, 1824.

Insane.	Curable,	199	152 under treatment. 47 convalescent.
	Incurable,	656	
	Imbecile,	660	
Epileptic.	Curable,	32	
	Incurable,	295	
		1842	

The result of this table shews a proportion of one curable to six and a half incurable cases—the epileptic not being included in this calculation.

A comparison between the two divisions will show, that if two sections are required for the curables, there will be six wanted for the incurables, and a larger number still for the female lunatics. Where the alienation is hopeless, the patients are generally tranquil. The mind being almost annihilated, there is no necessity for isolating them from their companions, as in the case of those under treatment. The cells might here be replaced by dormitories, and much room saved by the change. By removing the convalescents to the superintendent's house, there would remain yet more cells for the reception of new comers.

Three *pavilions* might, therefore, be consecrated to the use of those under treatment, the five others might be occupied by the incurable, the epileptic and the sick.

The following table will show the order we propose in classifying the patients.

Convalescents in the building of the administration.

Monomaniacs, Suicidally disposed,	1
Acute delirium, maniacs,	2
Imbeciles, demented,	1
Idiots,	1
Infirmary, *Gateurs,** Paralytics,	2
Epileptics,	1

*We are unable to give a meaning to this term. Possibly, judging from analogy, it may imply the mischievous.

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A building at a distance from all the others is destined for the furious, who are always few in number. These are chiefly from among the lower classes, and the prevalence of this form among them seems to depend upon the uncontrollable violence of their passions and their total want of education. This observation should never be lost sight of, where a hospital for the insane is about to be established. Perhaps in imitation of the asylums at Milan, and the hospital of San Bonifazio at Florence, it would be well to have a darkened chamber in this building. That at San Bonifazio is lined in every direction with matting, covered over with black cloth. When the violence or agitation of the maniac is excessive, he is shut up here, and in most cases is quickly brought to a calm state. At the Asylum de la Senavretta, in Milan, thunder storms are imitated, rain is made to fall, and light followed by darkness is caused to imitate the alternations of day and night. Dr. Lombardi informed us, that he employed these means with success in cases of casual stupor and violent delirium.

We have seen that the amount of insanity among women in France, is greater than among men. The same fact applies to Belgium. Statistical tables containing every case of insanity that happened in the provinces of North Holland, from the year 1820 to 1825, drawn up by M. Guislan, give as the result:

2,157 Men.
2,363 Women.

It is therefore necessary to increase the number of sections for the females, or what is better, to enlarge the *pavilions* in actual use, and to render them capable of receiving thirty patients in each flat. Supposing that an institution for 500 insane was about to be formed, if the accommodations are intended for 240 men, this calculation would assign a space sufficiently extensive for the reception of about 260 women.

An important question now presents itself, whether all the sections should be made either into cells or dormitories, or

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whether we should allow both? Our experience has taught us, that monomaniacs, maniacs, the suicidally disposed, the furious or agitated cannot be admitted with safety into the common sleeping room. The immense majority of these cases demand the most complete isolation, either because the spectacle of their companions in misfortune depresses or irritates them, or because they disturb the quiet of the peaceable.—The same mode of treatment is moreover not applicable to all without distinction; it requires to be modified in almost every particular case, and the moral treatment so often called for, cannot without bad consequences following, be extended to the whole of them. When during the progress of the disease, vigorous measures and severe reprimands are too often employed, the moral influence of the physician suffers. In order to command obedience from the patients, firmness of purpose must be accompanied with mildness of manner.

Cells are therefore essential for the class of lunatics just spoken of, but they are not wanted for convalescents, idiots, &c., nor for lunatics suffering under bodily sickness. Convalescents about to re-enter society should be allowed to make a trial of their accustomed habits as in health; and their re-union has for its object to accustom them, by degrees, to the usages and social regulations of the world. When in each other's company they soon feel the necessity of exercising a certain control over their speech and actions.

The second class no longer requires to be strictly watched. The superintendence in the dormitories is rendered easy, and a less number of domestics are wanted.

Boarders are admitted to St. Yon and several other establishments, and the sums paid by them constitute a valuable income to these houses. The number of those being small who pay high fees, a small and retired house as at St. Yon, might be built expressly for them. A circumstance we remarked at the convalescent asylum of Sonnenstein merits notice here. This institution only contains two classes of persons; but by a wise and liberal conduct on the part of the

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director, no regard is paid to rank; if the patient, although poor, be an educated man, or has moved in good society, he is at once transferred to the first class.

Each section is of a square form. It is that, as we have already remarked, upon which the new additions to the Bicetre, Salpetriere and Charenton, St. Yon and M. Esquirol's house are planned. In their construction this principle should not be forgotten, namely, that each section must be so isolated, that nothing passing in the next shall be either seen or heard.

A section contains, 1st. The chambers of the superintendent on the same side; 2d, the store room; 3d, the chamber of the nurses; 4th, the refectory or hall; 5th, a room for washing.

In the wings on this side are the cells or dormitories. These last should not contain more than ten beds each. This distribution, which we saw in the fine civil hospital of Munich, seems preferable to the magnificent halls of Italy, or even to our long French wards, where, upon the slightest variations of the temperature, so many are attacked with pleurisy or pneumonia. The side parallel with the chief superintendent's lodgings is terminated by an iron grating, looking out upon a garden, massive foliage, or green verdure. In one of the angles is the door communicating with the exterior, for quiet patients or those willing to work. In the other angle is the privy. This, Mr. Desportes proposes, should be divided into two parts, the one for the accommodation of patients, and the other for emptying the vessels used by those who are confined or unable to move. Much of the cleanliness and comfort of the establishment, depends upon a strict enforcement of the regulation here alluded to.

The privy should be situated as near as possible in the direction of the current of air from the north or south. It should be provided with a drain communicating with the general one, or it should have a non-odorous apparatus.

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There are few who have not been struck with the execrable condition of these places in public establishments. In most cases, the odour exhaled is so overpowering, as to compel an instant retreat. We have more than once, in the hospitals of Paris, lamented this neglect of hygienic laws.

This fault might be obviated by gradually replacing the ancient privies with water closets, or by making a chimney of a size corresponding to the opening of all the seats, which shall be carried up to the highest point of the whole building. An excellent means is found in having a small reservoir of water over the privy, fed by a stop-cock furnished with a floater. The patient, in the act of opening the door, by means of a simple piece of mechanism, fills the recipient, and on going out, when he shuts it, the water is at once discharged into the basin. The water, in passing through, cleans it of all impurities without further assistance. This plan is used with success at the *Salpetriere*. In most of the cells at the hospital of San Bonifazio, at Florence, the privies are so constructed that when the patient seats himself, the weight of his feet opens the valve of the reservoir, which does not close until he retires. Another piece of mechanism, answering the same purpose, consists of two moveable supports, placed at the spots where the patient rests his hands. An improvement might be made upon this last by causing a stream of water constantly to flow.

Our recommendation is, to allow all the rain water, and that which has been used for domestic purposes at each section, to run in an open stream into a drain communicating with the privies. It is a short and easy way of cleansing them.

In speaking of the main entrance, the number of rooms or apartments that are indispensable here, was given. The chamber appropriated to the nurses of the incurable patients, should contain three beds. There should be at least four beds in that appropriated to the nurses of the patients under treatment, because the *surveillance* is more severe, the

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wants of the patients more numerous, and because they require to be watched as carefully by night as during the day. The refectory or hall should be thirty feet square, by about fifteen in heighth. All the casements should be left open at night, and they should be furnished with ventilators. The store room contains the clothing, linen and domestic utensils. The laundry, which might also be used as a working room, is destined for the scouring, washing and steeping of the foul linen.

The habitations of the insane call for the greatest attention on the score of hygienic exactness. We have never forgotten the following fact, which M. Dupuytren was in the habit of relating at his clinical lectures: "Every time," said this celebrated man, "that the *Salle Sainte Marthe* contained four or five beds more than its usual number, during the prevalence of typhus fever, that moment the terrible malady made its appearance. By removing the supernumerary beds, its progress was as quickly arrested." It is therefore evident, that the size of the halls and cells requires the greatest attention on our part. If the section is devoted to cells, we should insist upon having each of the latter eleven feet deep by nine in breadth and heighth.

Nor is the position of the windows and doors of the cells a matter of indifference. If the former are placed too high, it conveys the idea of a prison. We have observed this fault at the hospital of St. Orsola, at Bologna. The elevation is too great to permit an effective *surveillance* over the inmates; and besides, the circulation of air is imperfect. To be of any utility, they must be placed directly opposite to the door; they should be lofty, and commence a foot or two only from the floor. A current of air is now established, and when during the day the two are opened, it quickly dissipates the emanations arising from the patient's body. The windows being lofty and little elevated from the floor, and also fronting the door, the insane may be approached with great facility; and if, perchance, he should barricade

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himself within, and refuse to allow any one to come near him, by directing all his attention towards the window, when he least expected it, the door may be forced open and the refractory individual secured without further danger to himself or the attendants. The night visits are also more easily accomplished. We need hardly add, that they admit much more light, and that the rooms are in consequence far more cheerful.

The flooring should not be indiscriminately of wood or of tiles or brick. The first is well adapted for convalescents, the melancholy, and, in general, for all cleanly patients; but it is not at all fitted for furious maniacs, for those who destroy every thing within their reach, for paralytics, and all others who permit their evacuations to escape without being aware of it. The brick floor must be here resorted to, and the materials joined together with good cement or bitumen. By inclining it towards the door, the liquids flow downwards and do not stagnate. We have seen a paving of glazed tiles in several establishments, and among others, in that of *Miano* near the *Capo di Monte*, at Naples. We are inclined to think these materials as proper as any to be employed. At Venice, the flooring of the wards in the Civil Hospital is a kind of McAdamization, not dissimilar in appearance to that laid over the *Pont de Carousel* by the engineer, M. Polonceau. The most objectionable of all the different kinds is the stone pavement. It exists in the wards of the General Hospital at Rouen, a shameful relic of what was once a prison, and which should have been abolished long ago, in a rich and liberal city too, possessing, as it does, a magnificent lunatic asylum. The stone pavement is soon rendered filthy by the matters falling upon it; these are absorbed into the substance of the stone; the fetid evacuation penetrates the cement, and a source of infection is established, which leaves its taint in the clothes of those who visit these sad receptacles of human misery.

The bedsteads of the peaceable insane should be made of

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iron; those of the furious, of thick and heavy wood, securely fastened into the floor by the four legs. The beds of the paralytic should have in the middle, a hollow basin of folded lead pierced in the centre with a hole. The straw used in these bedsteads should be changed every day, and even every time that it is soiled by the evacuation of the patient. The bedstead should be placed in such manner, that if the conduct of the patient requires coercion, he might be at once surrounded. It has been thought advisable to allow bed curtains to those who are not maniacal or paralytic. No inconvenience would seem to arise from them to monomaniacs or the melancholy not disposed to commit suicide; and we believe them to be proper for women.

The walls and ceilings should be whitewashed. The furniture of each cell should consist, beside the bed, with or without curtains, according to the nature of the malady, of a mattrass, a straw bed, a bolster, one woolen blanket in winter and a cotton one in summer, one chair, one table, one close stool, a pot, a basin, and a drinking cup. The utensils should be made of tin, as wooden ware is liable to contract a bad odor.

The sections containing the dormitories should be forty-eight feet long by twelve in breadth, and as many in heighth. Care should be had that the space allotted to each patient should be six toises* in extent, for the reason that the exhalations from a number of persons assembled together, are always more mephitic than that arising from a solitary individual. The bedsteads, as in the cells, should be removed from the wall in order to allow of free access to them. The floor should be of wood. In the new edifice at Charenton the floorings are of painted and varnished oak, or paved with painted and varnished bricks. The ceilings are attached to beams and ornamented with moulding and other figures. The bedsteads are of varnished iron, the tables,

* A toise is equal to six feet.

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chairs, sofas, cupboards, of varnished oak; the bed covers and curtains, and also the window curtains, are of fine white cotton stuffs; the stoves are of glazed tiles. The domestics' rooms are at the extremity of the dormitories, and are only separated from them by a glass door. The casements are broad and lofty, with four shutters, which fold open and shut.

A gallery similar to the ancient monastic cloisters should extend around the interior side of the buildings. It should be supported by columns of wood or stone. It should be at least six feet wide. In hot or rainy weather it would serve as a promenade for the inmates. Its height should be so regulated that the four sides composing it should not impede the free admission of light and air into the cells.

The centre of the square might be converted into a court planted with trees, and decked with tufts of flowers. It is not the case as has been stated, that the insane always take a delight in destroying. The director of the asylum at Rouen pointed out to me several courts in which he succeeded in planting trees, and none of which were ever pulled up. The court of the new building at Charenton is of an oblong shape. There are three galleries attached to all the buildings. The pillars are made of cut stone. A fourth gallery, larger than any of the others, and enclosed by a handsome bronze grating, overlooks the meadows and banks of the Marne. It is, during bad weather, an invaluable place for taking exercise. The court is shaded by lime trees planted around four grass-plots; and no injury has ever been offered to them by the patients. At the Bicetre, and at the Salpetriere, where, from their number, they were often unobserved, we have ourselves seen the mischievous prevented by their companions from committing the smallest destruction. It rarely happens that any of these unfortunates even pluck a flower; and were it otherwise, it would be more humane to replace repeatedly the plants destroyed by them, than to expose them to the burning rays of the sun,

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reflected from the pavements or bare ground. Beds of flowers may be planted in the court of the convalescents, monomaniacs, demented, imbecile and idiots. The fountain, or any other source for furnishing water to the inmates, should be supplied by a branch pipe from that which carries it to the wash house and refectory.

Lastly, a covered or enclosed gallery, parallel with the three sides where the doors open, should be carried around the outside of the building. It may serve as a promenade during very cold weather, and may be heated by a hot air apparatus, connected also with the cells and dormitories.

Besides the visits that should be made by the director and assistant physician, there should be a guard in every section at night, to attend to the wants of the patients, and to subdue any disturbance that may arise. The services of this person are indispensable in the chambers of those under treatment. Night visits are of immense importance, and we recommend the superintendents to make them at due intervals.

To avoid as much as possible every circumstance that may recall the idea of a prison, would be but common humanity. The patient should therefore never be shocked or alarmed by the clashing and clanging of bolts, padlocks and double locks. The most advisable plan would be to have a single key that will open without unnecessary noise all the doors and windows of the division.

Having passed rapidly in review the plan and construction of the sections, before proceeding to consider the proper organization of the attendance proper for the insane, there remains a few words to be said upon three other buildings—the infirmary—bath room—and residence for the furious.

The insane, like the rest of mankind, are subject to a host of diseases; and if they are privileged (this remains to be proved,) from sharing in the effects of epidemics, they are on the other hand the subjects of many evils which form a me-

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lancholy accompaniment to their condition. A large proportion are subject to organic diseases of the heart, phthisis, and congestions of blood. Diarrhœa, dysentery, scurvy and cerebral affections are not less common. These and many other maladies demand unremitting care and attendance; it would be almost impossible to bestow the proper attention upon these cases if they were dispersed among the different sections, but on the contrary, the duty is much facilitated by collecting the sick into one room, and a less number of assistants is required. In the construction of an infirmary, the same rules should be followed as in the wards of a common hospital.

Plenty of fresh air, scrupulous cleanliness, and above all, perfect exemption from dampness, apartments for six or a dozen beds; such are the means to be employed if we would avoid the evils resulting from large and crowded wards with the consequent stagnation of air.

By conforming to the plan pursued in the establishments of Charenton, St. Yon, and the Salpetriere, there would be no difficulty in constructing that important adjunct to a lunatic asylum, a complete set of baths. Each quarter should be furnished with them. They should be exposed to the south. A sufficiently wide passage exposed to the north should lead to all the bathrooms, and it should be heated in winter and serve as a kind of antechamber. The baths, broader at the head than at the feet, should be made of tinned copper. The water should be let in at the bottom near the small end, and discharged in like manner at the head. Cold and hot water to issue from different stop-cocks; *one key* might serve to turn all of them, so that the insane may not have it in their power to fill or empty the baths.

The room for ascending and descending *douches* should contain two tinned copper and two oaken bathing vessels.—The two first, independently of the ordinary means of filling them, should be placed under a couple of stop-cocks, which last should be elevated about four feet from the patient's head and made to let out the water with the degree of force requir-

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ed. The two wooden baths should be each constructed with a long, flexible pipe descending from the ceiling and terminated by a stop-cock, the force of the *douche* can then not only be easily regulated, but it may also be applied to any part of the body. When the patient is unruly and refuses to submit to the *douche*, his head should be secured in a wooden lid strongly fastened to the bath, and the aperture for his neck should be sufficiently large to prevent his hurting himself, without at the same time permitting his head to slip through. We once saw a lunatic who in his struggles succeeded in extricating himself, he lay immersed in the water a half a minute before the lid, which was retained in its situation by hooks, could be removed. The wooden tubs might also serve for mineral baths and *douches*. The furnace and boilers should be placed in an apartment off the bathroom.

We have shown that it was necessary to have separate cells for the furious and agitated patients. They should be built on the same model as those in the sections, and in a solitary situation, in order that the repose of the other patients may not be disturbed. The materials of the cells should be either of unhewn or cut stone—their number, fourteen or sixteen—the beds secured to the flooring—the windows and doors solid and strong—the floor of large tiles cemented together, and lastly they should be heated with hot air.

As however this may produce dampness, M. Desportes suggests the propriety of roofing the cells with brick, and he is also of opinion, that floors of two inch oaken plank, well joined together, would last long and could be easily kept clean. By allowing a current of air to pass between the floor and the ground, it would further tend to preserve the former from decay, and add to the general salubrity of the place. The ceiling should be lathed and plastered, in order that it may more easily be whitewashed. Lastly, a dead wall should surround the building to prevent escape.

We have now noticed, according to the plan which seems to us the best, every circumstance relating to the details con-

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nected with a lunatic asylum, its distribution and domestic economy. We now come to speak of the persons composing the administration: namely, the administrators, director, chaplain, superintendents and nurses. The physician will be considered apart in another place.

Experience proves the necessity of placing the administration under the superintendence of a high authority, empowered to exact a faithful execution of all the regulations of the establishment. This should devolve upon a committee composed of respectable persons in the neighborhood, who have formerly held some office in the administration, as chief physician or director. We do not think that it should consist exclusively of medical men, for besides the sanitary laws, the outlays and receipts require to be strictly watched. (The art of keeping accounts and the duties of the administration are not learnt in a day, and it is besides useful to moderate the zeal of its members.)

We take the opportunity of proposing anew that a general superintendence over all the asylums in the country be vested in the hands of one medical man, who shall be called the inspector general. He should correspond with the minister, the commissions alluded to above, and the directors of the establishment. We may add with M. Guislan, who agrees entirely with our opinion, that this functionary should be chosen from among the medical men who are best versed in the knowledge of mental diseases.

If the physician were obliged to live in the establishment, we should confine ourselves to a simple enumeration of the other officers connected with the institution, but as the director alone is compelled to reside there, his life is spent in the midst of the lunatics, and it follows as a natural consequence that he should be in some degree qualified to perform some of the duties assigned to the physician. The first requisites are firmness and a love of justice, without these he will be neither feared nor respected by the patients. A commanding

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height and masculine voice are useful auxiliaries in subduing tumult and quarreling among them.

An object of the greatest importance, says Haslam, is to gain the confidence of the insane and excite in them sentiments of respect and obedience; this can only be accomplished with the aid of superior discernment, a polished education, and dignity of address and manner.

The superintendent who has acquired this ascendency over them, can rule and direct them at will; he should, when the occasion offers, make an imposing display of his power; he should threaten little, but act; and if his orders are disobeyed, punishment should be certain to follow. When the refractory patient is robust and strong, the superintendent will ensure a speedy return to obedience and inspire fear, by making his appearance with several assistants. It must be borne in mind that the director's temper should be under complete control, for the most deplorable consequences may follow a moment of anger, excited by malicious and ingenious provocation.

The duties of a superintendent are arduous and unremitting. He should visit the patients several times in the day; the new comers should be more particularly the objects of his care; aud he may also materially assist the physician in his observations. He should from time to time go the rounds at night, especially during the prevalence of cold weather.—The guardian and servants, if selected from the ordinary class of domestics, should likewise engage his attention. He will be careful to see that they treat the patients with kindness; that they execute the ordinances of the physician, and that they distribute faithfully the allotted rations and drinks. The servants not unfrequently sell the food of the patients. These last also often dispose of their share to procure wine, &c.

When a patient has committed a serious fault, the director may order him to be punished, but he should inform the physician of it at the next visit. He should allow none to visit the establishment but professional men and members of phi-

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lanthropic societies; permission to enter should not be granted upon any pretext whatever to those who simply wish to gratify their idle curiosity. He should have the charge and responsibility of all the non medical departments of the institution, and afterwards render account of his proceedings to the members of the administration. His conduct should be honorable and moral. He should not absent himself without leave.

The director of an establishment like this should have a liberal income. At St. Yon it amounts to 4000 francs per annum besides lodging, wood and candles. At Charenton he receives 6000 francs besides board, lodging, fuel, candles, and other perquisites.

The situation at the latter place is suitably provided for, at Rouen it is not so, for the director of an asylum should be regarded in a perfectly different light from any of the other officers.

The female superintendent should have a benevolent and affectionate disposition, at the same time she should be firm and decided. Nothing can be more detrimental to the good government of such an institution than to be under the care of an unamiable or fickle guardian. She should have the care of the female lunatics, of the wardrobe, of the washing department, and of the sick nurses. We have reason to believe the influence of woman to be most powerful. More than once have we seen at the asylum of Montmartre, Madam B. subdue by a look or a slight motion the ravings of the most furious maniac. But what struck us as the most singular circumstance, was the almost general acquiescence to her wishes tendered by the men, to whom she addressed with so much kindness her advice and counsel.

In the choice of sick nurses we have already expressed the preference we have for the religious orders. A period of fifteen years spent in hospitals has taught us to appreciate the benefits conferred by these females. The example set at the Asylum of St. Yon fully warrants our opinion. "Since they have been admitted into this establishment," says the director,

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"we have had every reason to congratulate ourselves upon the zealous and conscientious manner with which they dis-discharge their duties." We are pleased to find a similar view taken by a man who for many years past has been unceasingly engaged in ameliorating the unhappy lot of the insane; "however great," says M. Desportes, "the number of servants, and the care with which they are selected, and however well paid, still the object of faithful attendance is not attained, if they resort to this occupation solely for a livelihood. This employment demands a higher impulse for its due performance than the mere desire of gain or competence. But where shall we find those whom generosity alone shall impel to the execution of this harrassing duty? Let us not deceive ourselves; so much virtue can never exist, save in those associations whose motive is religion, and reward, the hope of eternal happiness in another and better world."—(Report on the state of the insane, 1822, 1823, 1824, page 36.)

If our ideas respecting religious associations be received, we would advise the foundation of an establishment for both sexes, in which would be taught every thing that is known respecting the care to be rendered to the insane. This instruction might be communicated by intelligent superiors.—The patients would then have about them persons who understood their situation, who would feel pity for their misfortunes, and soften, as much as lay in them, their misery. At the asylum of St. Yon, at Rouen, there are 17 nuns and a superior belonging to the order of St. Joseph de Cluny.

But if compelled to hire ordinary attendants, those should be chosen who are obedient, civil, humane and firm. The comfort of the insane depends much upon the kindness of the domestics. Those should not be engaged who are unshapely in person or face, for lunatics are often sarcastic, malicious and witty, and patience is not a characteristic of servants in general. One servant can attend to ten peaceable insane, or to six under treatment or who are restless or uncleanly.

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They must not report the patients' state in their presence; they must not rouse them too early nor allow them to sleep too late, they must keep watch upon the patients and not leave them alone, they must not address them rudely nor threaten them. They must not resort to coercive measures without express orders. If a patient conducts himself disorderly they should assemble together and impress upon him their superior strength. We have frequently arrested the fury of a maniac by getting behind him, and suddenly enveloping his head in a towel or napkin.

The good services of the domestics might be further insured by giving them higher wages and allotting a pension after twenty-five or thirty years service. Burrows in his work (Enquiry p. 265,) suggests the creation of a fund, out of which they should receive annual sums, increasing with their term of service, and proportioned to the personal injuries received in the exercise of their duties.

Hygienic Directions.

For the well being of the insane, it is not enough that favorably exposed buildings have been erected with ground floors and separate sections; but the rooms also, as we have already remarked, must be capacious and well ventilated. A fetid odor is exhaled from the bodies of most lunatics of so penetrating a nature as to attach itself to the clothes, bedding, furniture, and even the walls. Milling alludes to this fact in the following terms: "*Peculiari modo orhana olfactoria afficeri dicitur, et diu vestibus; lectis, ustensilibus, inhærens præcipue ex criptis cutis et papellis sacerni videtur atque a parietibus, quasi a spongiis insurgitur, posteaque iterum exhalatur, ut ergo iste odor specificus diu remotis agrotis ex illo loco, quo versati sunt, licent percipi.* (Mentis alienationum semiologia somatica. Bonn, 1828.) Burrows, in his works, says, that it is so characteristic of insanity, that were he to perceive it in any person, he would, without further proof, at once pronounce him to be a lunatic. This odor is well known to those who live in these establishments, and

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may be easily recognized by strangers. It may be neutralized by chlorine solutions and fumigation, or it may be dissipated by free ventilation, frequent whitewashing of the walls, and washing of the bed and bedding.

The different apartments and cells, should be well heated in winter. Some insane persons experience an extraordinary insensibility to cold, and a remarkable instance of this occurred in the person of the famous *Theroigne de Mericourt*, Goddess of Reason during the revolution, and afterwards a maniac in the *Salpetriere*. Every day, both in summer and winter, on leaving her cell, she was in the habit of pouring several pails of water over her body, without manifesting other sensations than those of pleasure. But this and similar cases are only exceptions to the general rule, and in opposition to them, many proofs might be brought forward to show their general susceptibility to changes of temperature. With what eagerness have we not seen them precipitate themselves towards the fireplaces in winter! Lunatics, apparently insensible to the rigors of the season, often experience the effects of being chilled, and are attacked with diarrhœas, colics and catarrhs.

Wagner relates (Ammerkungen zu Pinels eben angefuhrter schrift) that in 1799 three patients in the asylum at Vienna were seized with tetanus from exposure to excessive cold. Haslam remarks, that they are peculiarly liable to cold extremities, and adds, that at the Bethlem hospital, London, it is the custom to examine the legs and feet of the patients in the cells every morning and night, and to envelope them in flannel.

The choice and quantity of aliment proper for insane persons, is not the least important of the hygienic measures to be adopted. The evil consequences of too small or too abundant a quantity of food are well known. "It will suffice here," says the celebrated Pinel, "to recall to the recollection of the friends of good order, some melancholy facts connected with this subject, which passed under my own observation—the relation of them cannot fail to excite feelings of pity in the

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most obdurate heart. It was after a careful calculation of the quantity of food required for their separate wants, that the daily allowance of bread at the Bicetre was increased to two pounds for each patient; and for two years afterwards I witnessed the happy results following this wise order. I had ceased to be one of the physicians of this hospital, when, during one of those gratuitous visits which I was in the habit of making, it came to my knowledge that the ration of bread had been again reduced to 12 ounces. And I found that several patients who were formerly convalescent, had relapsed into a state of furious mania, and were now screaming out that they were perishing with hunger. The curtailment, however, did not stop here—the quantity was successively reduced to still smaller weights, with a very small quantity of often bad biscuit to make up for the deficiency. The consequences were, as might be expected, truly awful; it is a well established fact, that during two months alone the total number of deaths amounted to 29, whereas the mortality for the whole of the year 1793 was but 27. At the Salpetriere the same lamentable result took place, but with increased rapidity and additional horrors. During the space of a single month in 1796, there were 56 deaths from colliquative diarrhœa and dysentery.

"Had the funds of the hospitals been secure and not fluctuating, these calamitous events would have never happened."

To M. Pinel's statement might be added those communicated to us by several physicians, respecting the evils of insufficient alimentation, particularly to the convalescent. When the latter are placed upon the ordinary diet of the other patients, their recovery is always retarded, and they even die from exhaustion. The nervous system of the insane is in fact greatly depressed, and every practitioner is aware of the benefit of tonics and cordials to persons who are the subjects of debility, fainting and partial syncope. But generous food, however well adapted to patients who have passed the acute

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stage of insanity, is far otherwise to those liable to congestions, or who are seized with symptoms of paralysis; nearly all so affected have voracious appetites, and if permitted to gratify their desires for food without restraint, they are almost sure to die of congestions in the head, assuming the form of epilepsy.

The apportionment of the kind and quantity of food, merits therefore the full attention of the medical attendants. In some cases the nourishment should be abundant; and in others, diminished with judgment. A given quantity of food, under the direction of an indolent or negligent overseer, may prove insufficient for the wants of the patients, while with the same, one more zealous and active, will not only satisfy all, but even save a surplus to be appropriated to those unhappy persons whose unnatural cravings can only be appeased by a double or triple allowance. The rations for the day should not, as was the case at the Bicetre before the revolution, be given all at one time, because from want of foresight, or the urgency of hunger, they would be often consumed in a few moments, and during the rest of the day the patient would suffer severely from hunger. The furious and imbecile should be the particular objects of our care. The former often refuse to take nourishment; the latter, as well as the paralytics are not able to feed themselves.

There should be three repasts a day, namely: breakfast at seven o'clock in summer and eight in winter, dinner at one, and supper at six o'clock. Meat should be allowed five days in the week, and vegetables and fish on the other two. Two pounds weight of bread distributed as follows, are sufficient, a half pound morning and evening, and one pound at dinner. Half a pound of meat should be allowed at dinner; the other meals should consist of fruit, cheese and sweetmeats. We need hardly add that there should be soup every day at dinner. Peaceable patients should have wine mixed with water for their drink, and at least a tumbler of pure wine should be given to the feeble and aged.

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The regularity of the meals is also attended with its advantages. We had occasion to observe this in the asylum of St. Colombe and Montmartre, where the patients anticipated with pleasure the hour of repast, and often complained when, by some accident, it had been retarded. It served as a diversion to the morbid train of their thoughts, and exercised a power over their conduct that could at first sight hardly be believed. In those establishments where order and regularity pervade all the domestic arrangements, there will be found the greatest number of quiet and submissive patients, the most cures, and the fewest cases of outrageous mania. This happy state of things depends altogether upon the character of the director, and will prevail, if it be firm and just. But should he be unfortunately possessed of a sullen, fickle or tyrannical disposition, disorder will riot unrestrained in every department of the establishment.

The same regimen should not be prescribed to all without discrimination. The furious and agitated should be kept on low diet; too stimulating food is apt to hurry the circulation of nervous patients and cause violent irritation. But the diet should be generous when the patient's strength is failing, or where the disease owes its birth to debilitating causes. This remark applies particularly to suicidal monomaniacs, and it is ascertained by experience, that to these persons nutritious and even rich food is indispensable.

In dementia, imbecility and idiotcy the food should be substantial, and the same is equally called for where insanity is complicated with scorbutic and scrofulous affections. The use of nourishing food is above all indicated when the former of these complications is present. Convalescent and peaceable insane should dine at a common table, under the inspection of the officers attached to the house. We are convinced by observations made during several years, that the presence of the director at the common table has the most happy influence over the conduct of the patients, and that it tends to render them calm and quiet. At one of the best kept estab-

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lishments in Paris may be seen thirty insane persons seated at the physician's table and conducting themselves with such propriety, that strangers visiting them for the first time, find it difficult to realize the fact that they are so many madmen. We have also remarked that assembled together in this manner, they frequently forget the engrossing subjects of their insanity and enter into animated conversation on ordinary topics.

Below are given the diet tables of the hospitals Salpetriere and Bicetre and the asylums of St. Yon and Charenton.—These details are not without interest, and they may serve as precedents for the formation of others in any future establishment which it is proposed to create.

SALPETRIERE.

Lunatics in good bodily health are allowed, two pounds of bread and a quarter of a pint of wine per day.

Days when meat is allowed—dinner.

Soup 1 qt. roast meat, without bone, and weighing when raw, eight ounces—4 oz.

Supper.

Dried vegetables,* crude, ½ pint, or fresh ditto, 6 oz. or rice about 1 oz. Cheese about 1 oz. or prunes 1½ oz. or raisins ditto, or an equivalent of fruits in season.

Fast days—dinner.

Soup 1 quart.

Dried vegetables, crude, two thirds pint, or fresh ditto 1 lb. or about 2 oz. of rice.

Supper.

(as above.)

BICETRE.

Lunatics in good bodily health receive about 2 lbs. 4 oz. of bread and one quarter of a pint of wine a day. An additional allowance of the latter is allowed both to men and women when advanced in age.

Legumes Secs, including peas, beans, lentils, &c.

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(The other allowances are precisely the same as at the hospital of the *Salpetriere.*)

At the HOSPITAL OF ST. BONIFAZIO, FLORENCE, the bread is white and of good quality. The patients take their meals at eight, ten and four o'clock. 1½ lbs. of bread, wine mixed with water, soup and meat compose the nourishment.

ASYLUM OF ST. YON AT ROUEN.

In this establishment there are four classes of boarders, and the diet allowed to each is as follows:

Boarders who pay 450 *francs.*

Breakfast at 9 *o'clock.* Fruit or cheese. Bread at discretion.

Dinner at 1 *o'clock.* Meat soup four times a week, beef or *ragouts.* On fast days, vegetables or salt fish or eggs.

Supper at 6 *o'clock.* The same as at breakfast; and once a week, sausages, apple or pear preserves.

Drink. Cider.

Boarders at 675 *francs.*

Breakfast at 9 *o'clock.* Two plates of fruit or cheese.—Coffee with milk or chocolate at choice.

Dinner at 4 *o'clock.* Soup. Beef or *ragout.* One plate of vegetables. Two plates of dessert.

The same drink is allowed as to the boarders of the first class.

Boarders who pay 1000 *francs.*

Breakfast at 9 *o'clock.* Cutlet of mutton or beefsteak, 2 plates of dessert; coffee with milk, or chocolate.

Dinner at 4 *o'clock.* Soup, beef or ragout, roast meat, salad from one to three times a week, 2 dishes of dessert.

Boarders who pay 1500 *francs.*

Breakfast at 9 *o'clock.* 1 plate of meat, 3 plates of dessert, (fruit, cheese, and preserves.)

Dinner at 4 *o'clock.* Soup, roast meat, vegetables, salad, three times a week. 2 plates of dessert. Chicken is allowed to these two classes once a week. They have their choice of wine or cider for drink.

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CHARENTON.

The boarders at this establishment are also divided into three classes; the first pay 1300 francs per annum; the second, 720 or 1000 francs; the last only pay 300 francs.—The president presides over the common table, and the following are admitted to it: the officers of the establishment, the convalescent insane, and the patients belonging to the first class. Soldiers and sailors received at the highest rate per day; the insane of the second class; military and naval sub officers are allowed to come to this table twice a week. The insane and convalescents who are in a fit state to join their companions here, are designated by the physician.

Diet Tables.

Breakfast at the common table 11 o'clock; dinner at 6 o'clock. Breakfast in the corridor and common halls 7 o'clock. Dinner at 12 and supper at 5 o'clock.

1st CLASS. *Meat days.*

Bread for the day,	22 ounces.
Wine ditto,	1 pint.

Only two thirds of the quantity of wine allotted to the men are given to the females.

Breakfast for the men.

Cheese, about	1 ounce.

Or its equivalent in butter, fruits, fresh or dry.

Breakfast for the women.

Coffee with milk,	1 pint.

Dinner for men and women.

Soup,	1 pint.
Soup meat,	4 ounces.
First entire of meat,	5 "
Roast meat,	ditto.

Or its equivalent of fresh fish or chicken.

Cheese, about	1 ounce,

Or its equivalent in dried fruit or those in season.

Supper.

Roast meat,	5 ounces,

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Or fresh vegetables,	1 pound,
Cheese, about	1 ounce,

Or its equivalent of dried fruit or those in season.

Fast days.

Bread, wine, and breakfast as above.

Dinner.

Soup,	1 pint,
Fresh fish,	8 ounces,
Eggs,	2
Or fresh vegetables,	1 pound,
Cheese, about	1 ounce,

Or its equivalent of fruit.

Supper.

Fresh fish,	8 ounces,
Or fresh vegetables, salad,	8 "
Cheese,	1½ ounces,

Or its equivalent of fruit.

2d Class.

On meat days.

Bread for the day,	23 ounces,
Wine for the day, about	1 pint.

The women are only allowed two thirds of that quantity of wine.

Mens' breakfast.

A third of their rations of bread and wine.

Womens' breakfast.

The same as above. Milk is sometimes substituted for the wine, 1 pint.

Dinner.

Soup,	1 pint,
Soup meat,	4 ounces,
Ragout,	5 "
Or fresh vegetables,	1 pound.

Supper.

Roast meat,	4 ounces,
Or fresh vegetables,	1 pound.

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Dessert on Sunday and Thursday only.

Cheese, rather more than	2 ounces,
Or equivalent of fruit.	

Fast days.

Bread, wine, breakfast as above.

Dinner.

Soup,	1 pint,
Salt herrings or eggs,	
Or its equivalent of fresh fish,	
Dried vegetables,	1 pint.

Supper.

Dried or fresh vegetables,	1 pound,
Eggs,	1½.

3d Class. *Meat days.*

Bread for the day,	32 ounces,
Wine, ditto,	1 pint.

The women have only two thirds of the bread allotted to the men.

Breakfast.

One third part of the bread and wine.

One pint of milk is given to the women instead of wine.

Dinner.

Soup,	1 pint,
Soup meat,	4 ounces,
Fresh vegetables,	8 "

Supper.

Dried or fresh vegetables,	1 pound,
Or salad,	8 ounces.

Roast meat or ragout on Sunday and Thursday, 4 ounces.

Low diet.

Bread, wine, and breakfast as above.

Dinner.

Soup,	1 pint,
Salt herring,	1
Legumes Secs,	½ pint.

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Supper.

Cheese, about	1 ounce.

The indigent insane of the Canton received gratuitously, or at a reduced price, are considered as belonging to the third class, and receive the diet appropriated to that division of patients. Soldiers and sailors received at the lowest price per day are also placed in the third class. Those who are entered on the highest price per day are classed with the second division.

The physician during the visit is empowered to modify the diet, and substitute one regimen for the other; but in that case the change ordered is recorded in the visit book.

There are two other common tables in this establishment, one for the attendants and insane of both sexes who are deemed fit subjects by the chief physician, the other for the inferior servants. The diet of both is as follows:

First table. Full diet.

Bread for the day,	23 ounces.
Mens' breakfast.	
Wine,	1 pint,
Cheese,	2 ounces.
Womens' breakfast.	
Coffee, with milk,	½ pint.
Dinner.	
Soup,	1 pint,
Wine,	1 "
Soup meat,	4 ounces,
First dish of meat,	5 "
Roast butchers' meat,	4 "
Or chicken,	
Fresh vegetables,	12 "
Or its equivalent of pastry or cream,	
Cheese,	1 "
Or its equivalent of dry fruits or those in season.	
Supper.	
Fresh vegetables,	12 ounces,

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Or dried "	
Or eggs,	2
Or rice and milk, about	½ pint,
Wine,	½ "
And twice a week,	
Roast butchers' meat,	4 ounces,
Dessert as at dinner.	

Low diet.

Bread, wine, breakfast as above.

Dinner.

Soup,	1 pint,
Salt or fresh fish,	8 ounces,
Fresh vegetables,	12 "
Or dried "	
Eggs,	2
Dessert as above.	

Supper.

Fresh vegetables,	12 ounces,
Or dried "	
Or eggs,	2
Or rice and milk,	1 pint,
Dessert as above.	

2d Common table. Full diet.

Bread for the day,	2 pounds,
Wine, "	1 pint.

Dinner.

Soup,	1 pint,
Soup meat,	4 ounces,
Fresh vegetables,	12 "
Or dried "	

Supper.

Dried vegetables,	½ pint,
Roast meat or ragout,	2 ounces.

Low diet. Dinner.

Soup,	1 pint,
Salt herrings,	2

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Dried vegetables,	½ pint,
Or fresh "	12 ounces.

Supper.

Eggs,	2
Fresh vegetables,	12 ounces,
Or dried "	½ pint,
Or salad,	8 ounces.

In finishing here what we have to say upon the alimentary arrangements of these establishments, it may be well to subjoin an account of the daily expenses incurred at several of them; and we must observe that the mode of apportioning the food to the several patients, requires to be modified in all of them, because there are some of the insane whose appetite is so voracious that the ordinary rations are altogether insufficient to appease their hunger.

EXPENDITURES.

Bicetre.

Outlays.	Boarders.	Boarders deducted.	Daily expense.
f. 1000,276.43c.	f. 9893.43c.	f. 991,383 22c.	f. 98 44.

Salpetriere.

f. 1,415,269 60c.	f. 205.41 64c.	f. 1394727 96c	f. 79,50.

Average expenditure of each person per day, f. 354 26c.

Items of expenditure for each day.

	Bicetre.	*Salpetriere.*
Repairs and alterations,	f. 04,56	02,35
Administration, wages, salaries, &c.	06,13	05,01
Treatment,	01,02	01,01
Food,	64,68	56,02
Light and fuel,	03,99	03,05
Household expenses,	11,86	06,58
Incidentals,	06,22	05,48
Expenses peculiar to establishment,	00,98	01,17
	f. 99,44	80,66

These calculations are rather greater than the preceding, but it must be remembered that the first are under the actual amount expended.

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Daily expense of each boarder at St. Yon.

Of each boarder at f. 1500, f. 2 70c. per diem, or f. 988 20c. per annum.
" " f. 1000, f. 2 20c. per diem, or f. 805 20c. "
" " f. 675, f. 1 60c. per diem, or f. 585 60c. "
" " f. 450, f. 1 09. per diem, or f. 399.

It was originally our intention to subjoin a list of the expenses incurred at the asylums of Italy; but the accounts not being kept in that country with the same exactness as in France, we shall confine ourselves to enumerating the rates of board demanded at several of them.

At Reggio, Manicomio and Turin, there are four classes of boarders who pay 350, 450, 600 and 800 francs. The boarders of the two first classes receive nearly the same treatment as the indigent insane; and for the proper maintenance of the latter, 200 francs are allowed for each by the government. The boarders just spoken of are placed in the same apartments with the poor, but receive rather better food. Those belonging to the two other classes inhabit separate cells, the only distinction made between them is the quality of the food.

At Milan, the boarders at the asylums of Senavretta and the Porte de Verceil form four classes; in the first are comprised all who pay three florins a day; in the second, those who give two florins, and in the third, those who can only afford one florin a day. The boarders of the two first classes live in separate chambers; the difference between them is, that each one of the first class has a separate attendant attached to his person. The patients included under the third division, sleep two in a chamber, have less abundant nourishment and the common attendance of the house.

In the asylum of St. Lazarus near Reggio in Modena, the poor pay twenty-five sous a day; the wealthy in the State of Modena pay thirty-five sous, and Italians from other States, forty-five sous. For these sums the rich and poor are fed, and the latter are clothed, physical and moral treatment and petty expenses being included.

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At the hospital of Sant Orsola in Bologna, the insane are maintained at the public expense; rather more than 20 sous a day is paid for each patient.

The majority of insane persons are sensible to the effects of atmospheric changes; the maladies of which they die when unduly exposed to their influence, set this matter at rest. It is therefore absolutely necessary that they be clothed in conformity to the seasons. This rule is observed at Florence, where in winter they are furnished with a blouse or smock frock, vest and trowsers of woollen cloth; and in summer with the same articles of dress made of linen. At Rouen, in the asylum of St. Yon, the patients of the last class have in summer a round jacket, vest and pantaloons of blue cotton cloth; and in winter they are made of grey cloth. They also receive every week a clean shirt, neckerchief, pocket handkerchief and a pair of stockings. Instead of a neckerchief, the women are allowed a small shawl.

It has already been remarked that the insane should remain warmly clad until the hot weather has set in; we further recommend the winter clothing to be resumed in the autumn, some time before the inclement weather commences.

Flannel next to the skin is essential to the safety of the consumptive, of those liable to visceral derangements, and of women affected with fluor albus. Of the benefits arising from its use in the latter affection, we are convinced both from our own experience and from the perusal of tables. There are many cases of recovery on record, which were owing to the constant wearing of flannel drawers.

Care should be had to furnish the patients with warm stockings and shoes; coldness of the extremities is at all times hurtful, and often occasions serious diseases.

Uniformity of costume possesses all the unpleasantness of a livery, and it is on that account the source of many painful feelings to those patients holding a certain standing in society. If, even in public hospitals, it is the occasion of

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much unhappiness, particularly to the women, how much more will it not distress beings whose reason is or has been disturbed? We do not think that any additional expense would be incurred by affording a variety of costumes to the patients; and certainly none would accrue by permitting them to wear the clothing they brought with them to the asylum.

There are, however, exceptions to be made in the case of the furious and uncleanly; these require a particular kind of dress. It would be also highly injudicious to permit nuns and priests to wear a costume that would every instant recall the sad subject of their insanity.

Cleanliness is a point upon which we cannot too earnestly dwell. The linen and clothes of the patients should be changed as soon as they are soiled. The attention and care of the attendant should be constantly directed to the state of the dormitories, cells, bedding and night-stools; the health of the patients depends upon this duty being faithfully performed.

"In all public asylums," says a distinguished writer, "such as prisons and work-houses, mechanical employment is the only sure means of promoting the good health, order and morals of their inmates; nor is this fact a problem that remains to be solved; on the contrary its efficacy has been proved by the results of long continued and uniform experience." This truth is, above all, applicable to the insane; the number is very small who are entirely unable to assume some active occupation. It changes the morbid train of ideas and re-establishes the faculty of attention; perfect order is maintained, through its assistance, in any assemblage of lunatics, however large, and a crowd of minute and often futile regulations is thus dispensed with, which would otherwise be necessary towards its preservation.

Idleness and indolence, faults so natural to children, says La Bruyere, are no longer seen when they are at play, but give place to vivacity, application and rigid adherence to

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the rules of the game. Does not the same observation equally apply to the moral condition of the convalescent insane? When enervated by the depressing effects of an inactive existence, they are suddenly aroused to exertion by the action of a bodily and mental stimulus properly administered; there is no principle on which the opinions of ancient and modern medicine are more uniform. Agreeable recreation or hard labor arrests the wanderings of the deranged intellect, prevents congestions of blood in the head, tranquilises the circulation, and procures refreshing sleep.

Notwithstanding its excellent tendency, the system of bodily labor is not generally introduced into the insane establishments of France. Strangers, while they admire our magnificent asylums, the numerous improvements in the treatment of the disease and the humanity with which its victims are regarded, do nevertheless accuse us of neglecting this most valuable addition to the moral means already in use.

We have not forgotten the favorable impression produced upon us at the fine establishment of Sonnenstein at Pirna, near Dresden, when we visited it in August, 1831. The greater part of the patients were engaged in the cultivation of a vast kitchen garden, some were turning up the soil with the spade, while the rest were employed in weeding and watering the plants, and carrying away refuse in wheelbarrows. All seemed to work with cheerfulness. There was also occupation for them in the interior of the buildings, they were cleaning the rooms, carrying in loads of bread, or engaged in other similar offices. We were particularly requested to observe a man who was splitting wood in the court. He was tranquil—his countenance beamed with kindness, and he punctually obeyed all commands laid upon him. But this interval of calm was succeeded at the end of a few months by a relapse, which took on the form of homocidal monomania. When the attack was about to take place, it was preceded by watchfulness and unusual loquacity; the predominating idea then influenced all his actions, and he

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was irresistibly impelled to seize a knife and shed the blood of every one who crossed his path. Several other cases of a similar kind have been observed in that establishment.

An esteemed friend, Dr. Marcincowski, known for the noble part he took in the last struggles of Poland, informed us that being well persuaded of the advantages of bodily occupation to the insane, he caused them to labor "*d'une maniere automatique*," and was seconded in his views by the sisters attached to the hospital. By adopting that mode of giving employment, he overcame the inconveniences connected with the insufficiency of room in the establishment. The same gentleman related an instance of its happy application in the treatment of a young Pole, whose insanity had resisted all other curative means; he had travelled in every direction without relief, and was now reduced to a state little removed from mere vegetation. His mother, whom hope never abandoned, seeing that the resources of medicine were exhausted, conceived, with the ardor and tenacity of maternal affection, the project of stimulating him to some occupation. Notwithstanding the patient's antipathy to her, a symptom unfortunately so common in madmen, she tried at least twenty different plans to effect her purpose, but without success; she was unable to rouse her son from the torpor and revery into which he was plunged. She now resorted to stratagem, and betook herself to hard labor in his presence. This spectacle touched his better feelings, and he offered to aid her in her work. "Mother you will fatigue yourself," he said, "let me assist you to perform the more difficult part of your work." He began with hesitation and repugnance, but by degrees applied himself with more assiduity to the task, and he soon manifested the real pleasure which the salutary diversion from his habitual thoughts caused. The greatest improvement in the state of his intellectual faculties took place in a short time after. The foregoing example has been chosen for the sake of illustration,

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because the patient is well known, and was under the care of the most celebrated physicians in Paris.

A lady of our acquaintance was the victim of a profound melancholy, and had tried a host of remedies to no purpose. M. Magendie advised exercise on horseback; not being accustomed to riding, she was thrown from her horse and much injured. Her thoughts were then directed towards a positive instead of an imaginary evil. When her bruises were healed, she continued to ride, because the exercise had become pleasing; and in a very short time every symptom of hypochondria disappeared.

The utility, then, of bodily occupation does not admit of a single doubt; but it must be confessed that putting it into actual execution is not so easy as might be imagined. Germans, Swiss and even Americans, submit to discipline and rules much more willingly than Frenchmen. The latter are always ready to revolt; they are impatient when reprimanded, and with difficulty listen to advice. We are aware that blame is attached to the directors of the establishments, but without reason, for we know from experience that the men particularly, are averse to having tasks assigned to them. It is still more difficult to prescribe labor to wealthy patients, or those who have shone in society by their wit, talents or rank—it is almost impossible to induce such persons to work.

The impediments thrown in the way, by the obstinacy of the patients, although great, are far from being insurmountable, and there are always to be found many who are willing to pass their time usefully. The object, we think, might be attained with more facility, if some trifling recompense or salary were returned for the amount of work done by them. It would seem to encourage the really industrious, and stimulate the indolent to exertion.

In prescribing the degree and kind of exercise or labor, we should always take into consideration the previous habits and bodily strength of the patient, his industry and

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tastes. Those whose intellect is imperfect on a small number of objects only, should be employed in occupations requiring a certain combination of ideas. In every large establishment, there should be workshops for locksmiths' work, joining and stone cutting. Those who have a mechanical turn would find in the prosecution of these trades a healthy exercise, and useful recreation; but in selecting from the patients so disposed, those should be set aside who are mischievous, malicious, or who have a propensity to commit suicide, or who are homocidal monomaniacs.

A small farm, mill or brewery, would permit of a still more considerable number of patients being employed, because tending them requires a very slight mental exertion; many *idiots* and imbecile persons might thus be rendered useful, and many of the wants of the establishment supplied through their means.

At the farm of the Bicetre, the convalescents have this year cultivated a large portion of the ground; they devote themselves with pleasure to this employment. An extensive laundry is also in full operation among them. More than one hundred and fifty insane are engaged in throwing up terrace work, in masonry, gardening, locksmiths' work, plaster making, joinery and even carpentry.

Where the buildings are only one story in height and without workshops, the absence of the latter might be made up in extensive vegetable gardens. Their existence at the beautiful asylum of Sonnenstein has already been mentioned; almost every stranger who visits them has been as much struck with their appearance as we ourselves. The interior of the building affords numerous means of occupation, such as sweeping the corridors, keeping the courtyards in order, distributing the rations among their companions, and the like.

In some establishments, patients restored to reason have been retained as domestics. It was supposed that they would better appreciate the position of those whom they

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were called upon to attend; but the discovery was soon made of their unfitness for the situation, they were in general fickle, rude and subject to relapses. They were, moreover, found to be less indulgent to the faults of the insane. Most physicians have again resorted to the ordinary attendants.

In winter nearly all out door business is at an end, and its place requires to be supplied by sedentary occupations of various kinds. Those imposed upon prisoners would be useful in an asylum; the patients might manufacture straw bonnets, matting, thread, and the like. Knitting and weaving are among the arts most proper for them, because they exact attention and patience on their part, and may be executed without the aid of any dangerous instrument. It is our opinion that it would be highly useful to procure the services of attendants possessing a knowledge of trades and who should instruct the patients in them. The end in view, however, would not be attained, if the instructors were not at the same time attendants upon them.

To supply as much as possible the deficiency of work during the cold season, the patients should be made to walk out under the superintendence of intelligent attendants. This practice is followed with good effect at Charenton, the Bicetre, Sonnenstein, and in Dr. Blanche's institution at Montmartre. We have seen parties of twenty or thirty walking out and all very happy. These promenades are not only useful to those prevented from working by the rigor of the season, but are indispensable constantly to those who will not be employed notwithstanding the persuasions put in practice to induce them.

The women are in general more tractable than the men, and perform more readily the tasks imposed upon them.—They may sew, wash, spin and knit. But we again repeat, that their industry should be rewarded by some recompense, however trifling; such as small wages, a greater degree of liberty, or finer clothes than usual. The majority of the in-

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sane are partial to the use of tobacco; the gratification of this want might thus be turned to advantage.

There are some, who either from their position in society or from the nature of their ideas, cannot be induced to undertake manual labour of any kind. Other means of occupation must therefore be resorted to, such as chess, chequers, tennis, billiards, or a library of chosen books. They might also be employed in drawing, music, and gymnastic exercises.

Long before M. Esquirol was appointed chief physician at Charenton, theatrical pieces were performed for the amusement of the patients in that establishment. But they were found to be highly pernicious in their consequences, and were afterwards abandoned by the observant physicians who witnessed their evil effects. Was it not the height of folly to depicture before the victims of overwrought feeling, the passions that had upset their reason?

There will always be a certain number of insane who are deaf to the voice of kindness and fearless of threats. Turbulent, agitated and furious, they are totally ungovernable, cause terror to their companions and throw the whole establishment into confusion. The general good therefore, demands that they be removed from the rest, and even punished when they offend; because it is ascertained, that in the midst of a delirious paroxysm, the patient not unfrequently retains a just sense of right and wrong.

At the hospital of the *Convent de Force*, four leagues from Bordeaux, there is a refectory for each class, and the greatest punishment that can be inflicted on a patient, is to prohibit him from joining his companions at their meals. This example which agrees with our experience, shews the justice of first trying mild measures before resorting to coercion.—The offending person should be first told that he has infringed the regulations, and if necessary he should be next threatened with punishment, but here it must not be forgotten that no menaces ought to be made which may not easily be carried through, and they should be rendered more impressive by

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parading before the refractory patient the power by which they are to be put in execution. The privation of, or alteration in the quantity and quality of a meal and change of residence ought all to be tried before any other punishment is ordered. Among these preliminary measures may be classed, change of occupation and the deprivation of pleasures and agreeable recreation.

In reviewing the various means of punishment proper in the treatment of the insane, we pass over those in use at Rome, where the miserable patients are chained by the neck and ancles to an iron ring fastened into the wall, and compelled to remain in a standing position. It is easy to conceive the insupportable agony of such a situation. The same remark applies to the armbands (*armoires*) and vertical couches of Naples. Solitary confinement, the straight jacket, and knee bands—such are the only punishments that are now applied to the unmanageable patient. It would be well to imitate the custom at Charenton, of providing ample *blouses* or smock frocks for those who destroy their clothes.

The most simple and generally efficacious penalty is solitary confinement, and it might be rendered still more effective in furious mania by excluding the light, as we remarked in speaking of the darkened chambers of Italy.

When the patient is bent upon committing suicide, and wounds or bruises himself, besides being confined alone, he must be secured with a straight jacket. This is made of duck cloth, or double folds of strong linen fastened on the back by strings or buckles, and the sleeves longer than ordinary, are crossed over the hips and secured behind. We were much surprised to find that Haslam disapproves of the straight jacket; we have, for ten years seen it employed in all the establishments of Paris without recognizing any of those evils, which that distinguished man ascribes to it. At Sonnenstein we had occasion to remark an ingenious mode of tranquilizing the self love of the patients thus secured, which was by throwing a cloak over them. When the of-

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fensive appendage was thus concealed they appeared without reluctance among their companions.

By M. Esquirol's recommendation this same custom was introduced into the asylum at Ivry and it was found to have the happiest influence on the conduct of the inmates. By those who have the management of the insane the cause of these good effects is easily understood; they know that all the faculties of the mind are far, far from being perverted.

The *fauteuil de force* is a large arm chair, made of oak with a support for the feet. It is lined with leather and stuffed with hair, and there is an opening in the seat for the escape of the evacuations. The back is higher than the setter's head. The purpose for which it is intended has been much criticised as well as praised. To us it appears well calculated for subduing dangerous, mischievous, or suicidal patients, but the period of punishment during which this machine is employed should in every case be extremely brief.

When obliged to retain a patient in his bed, it is to be done by means of the straight jacket, knee bands of canvass cloth, and strong girths passed round his body, and fastened to the bed posts.

Lastly, it may happen that the insane person is the subject of the most desperate kind of suicidal monomania. This case, the most urgent that presents itself to the physician, calls for all his energy and resources, particularly if death by starvation is contemplated. After making a trial of all the means usual in such cases including the *douche*, he must tax his ingenuity to the utmost and discover other means of making him take food: because when once taken the patient has often been restored to reason.

The ordinary proceeding, when food is obstinately refused, is to throw him on his back and close his nostrils; the respiration being arrested, the patient opens his mouth and the opportunity is seized to pour down some liquid nourishment. We employed with success in three cases, the œsophagial catheter, it was introduced through one of the nostrils into the

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gullet, and the food injected into the stomach by the aid of a syringe.

If the foregoing experiments should still prove ineffective, we must resort to the rotatory machine. It has been successful in the hands of Dr. Bruni at Florence. The nausea, vomiting, fainting, and epigastric shock, cause such terror to the patients that they rarely refuse the food offered when this machine is afterwards shewn them. It has sometimes occasioned cerebral congestion, but that is no reason why it should be abandoned. The obstinacy of suicidal monomania is often invincible, and certain death would follow if not averted by the timely use of this powerful auxiliary. The truth of the aphorism, *melius remedium anceps quam nullum*, applies here with peculiar force.

For further information on this subject, may be consulted the excellent treatise on insanity and lunatic asylums, by Joseph Guislan, physician at Ghent, printed at Amsterdam in 1826.

Medical Attendance.

Madness, the inseparable companion of civilization, keeps pace with its progress, and increases in proportion to the developement of new thoughts and discoveries, or the prevalence of vice, disordered passions, and unwonted distress. The nature of madness is not understood by every one. It is only comprehended by him who, to an acquaintance with metaphysics and moral philosophy, unites a perfect knowledge of every branch of the medical art, including therapeutics and the *hygiene*. How, indeed, can he apply the moral treatment which plays such an important part in this branch of medicine, if he has not previously studied profoundly the passions that agitate and convulse the mind? But furnished with all this information, the physician is not yet competent to undertake the management of the insane, unless he has lived with them for a long period in the hospitals and other establishments devoted to their use. Let the authorities and administrations be well convinced that the reputation of an establishment de-

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pends not only upon its construction, but more still upon the talents and experience of its physician. We might cite a number of instances, where asylums, in every other respect well conducted, have fallen from the place they held in the public estimation, in consequence of an ill-judged medical choice.

The first requisite in a physician of the insane, is a thorough acquaintance with his subject, because the duties he has to fulfil carry with them an high responsibility. Thus he should know to what class of diseases he is to refer the case submitted to him. We have frequently seen errors committed by our medical brethren with respect to cerebral diseases. How often have we witnessed men, regarded as lunatics, who were suffering under arachnitis, inflammation of the brain or ramollisement; and the unfortunate prejudice in favor of insanity, always took deeper root, notwithstanding our repeated remonstrances to the contrary, nor did the future ever see those physicians compromised by the error they had made in the diagnosis. On other occasions again, we have been consulted in cases of insanity which were regarded as cerebral diseases of another kind, and treated accordingly—when we arrived it was to inform them of the irreparable loss of time they had caused by their ignorance. When the difficult varieties of insanity are not familiar to the physician, he easily confounds one kind with another, and his blunders occasion the most disastrous results to the unhappy patient. The proper classification of the insane requires profound practical knowledge; their recovery often depends upon the correctness with which this is executed. The changes which come over the character of a variety must be strictly watched; thus a patient who arrived a stark maniac may, after some time, become a monomaniac, and the abode first assigned to him is no longer proper, now that he is delirious on a small number of ideas.

The physician is liable to be questioned every moment on many other equally important points; his opinion may be ask-

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ed whether the individual is curable or the contrary, and whether he should be confined or not. This latter question should be answered with extreme caution, and not without deep reflection; for upon its solution often depends the most complicated interests. A premature or tardy interdiction has brought utter ruin upon many a family. Even life itself may depend upon his judgment, for he is frequently summoned to give his opinion in criminal affairs, and the result of his decision upon the state of the prisoner's intellectual faculties, determines his acquittal or conviction, as the case may be.

Supposing him to be well versed in the knowledge of mental diseases and of the human heart, let us now follow him to the scene of his active duties. If well convinced of the immense influence acquired by a resident physician over his patients, he should for their benefit impose upon himself the obligation of living constantly in the asylum. But for this sacrifice he should be well recompensed. Besides losing his private practice, he is subject to great fatigue, dangers and disgusts of every kind. This is fully acknowledged in Austria, where the physicians receive incomes of not less than eighteen or twenty thousand francs a year. M. Esquirol, to whose labors in this department we owe so much, has frequently repeated, that it was only by living in the midst of the insane, and above all by observing their symptoms in the silence of the night, that he had attained the knowledge which has conferred so much celebrity on his name. The maladies which afflict them should be watched with the utmost attention; like children, they can give no reasonable account of their feelings. The analogy between the latter and the insane is in no instance more strikingly developed. It often happens that the most fatal diseases exist without a single characteristic symptom being present, such as consumption, aneurism, water in the chest, and inflammation of the bowels. A slight change of countenance, or diminution of appetite, such are frequently the only indications of a mortal disease. Obscure and trifling as they are, and liable to be overlooked by the in-

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experienced, they suffice to place the scientific physician upon his guard, and to call forth an attentive examination.

Once more, I repeat, experience can be only had by living constantly with the insane; and this fact has been clearly demonstrated by M. Esquirol, Jacobi, Burrows and Friedrich; and it agrees also with our own experience.

The cure of insanity, unlike that of other diseases, is not accomplished by therapeutic treatment alone; there is another not less important and often more useful, I allude to the moral treatment. This is unquestionably the most beset with difficulties; its administrators are a class apart from the rest of the profession, and few even among them can be considered as adepts. Its object is not gained by those set speeches intended to be consolatory, which are delivered as if learnt by rote, but by the far more difficult art of opposing passion to passion, and of substituting gentleness and tranquility for vicious, violent and disordered propensities. As the original formation of the mind, on rigid analysis, will be found to be the secret spring of all human actions, he alone will be fitted to enter upon his duties, who shall have studied with care its organization. When compelled to use severe language, to chide or to reprove, he will do it with moderation—he can not feel anger at the faults, weaknesses and vices inherent to human nature once repressed by education, but now awakened by the loss of reason, and bursting forth with a fury proportionate to the restraint that had been imposed upon them. The greatest consideration and deference for the feelings of the patients is the rule of conduct by which he should be guided.

Psychological medicine may therefore be called the keystone of the arch; and it has been justly said, that it is the centre towards which all else should tend. Thus fortified with moral and scientific strength, he stands forth the object of fear and respect, aud his command over them is unbounded; but if the power which should be entrusted to him alone, be divided among many, or what is worse, if his authority be

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disputed by the patients themselves, then his acquirements become a dead letter, and the end he had in view, as well as the reputation of the asylum, are lost; all that remains to be done is to resign the situation as speedily as possible, if he would not further compromise his name and the welfare of the patients.

We might make many interesting observations upon the extraordinary power over the treatment of insanity, which is gained by *the continued presence* of the physician. How often have we seen patients restored to society who were once thought utterly incurable; they had been in vain treated by the most skilful members of the profession, and when received into the asylum, displayed a haughtiness, vanity and malignity that surpassed belief—but brought under the rigid and unceasing inspectorship of the physician, they soon displayed signs of approaching recovery, and were eventually discharged, cured of all their moral infirmities. The difference that exists between an ordinary hospital and a lunatic asylum, has not heretofore been considered with sufficient attention. In the former, the duties of the medical attendant are confined to a morning visit, to prescribing medicine, and seeing that the ward be in a proper condition; and if zealous, he perhaps returns in the evening to enquire after the more urgent cases —but his habitual presence is not necessary. It is, on the contrary, indispensable in an asylum; his success depends upon his having an intimate acquaintance with the character and disposition of each individual, and this object can be only accomplished by being constantly in their company.

Beside being skilled in his profession, and a resident of the establishment, the physician must be a person of good moral conduct.

An imposing exterior, so often useful in the common transactions of life, has a great effect upon the imagination of the insane. A masculine voice and energetic tones confer more weight upon remonstrance and advice. The language should be alternately friendly and firm, but always tempered with

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justice. There is no one who has not remarked the readiness with which the insane obey orders when they are proper; but if they are unjust and vexatious, they become discontented, irritated and insubordinate.

The medical visit should be made every morning. The new comers are to be examined with particular care, and correct notes of their several cases taken down by the house student. According to the conduct of the patient, he should be consoled, reprimanded or punished. We cannot too earnestly recommend to the physician, a thorough acquaintance with the previous history of each inmate. They should be made to see the interest he takes in their welfare, and the attention he directs to their health and conduct.

He should prescribe the necessary remedies for each day; and the prescriptions should be entered in books kept by the house student. At Charenton, the contents of these books are arranged in eight columns. The first contains the names of the patient; second, the date of admission; third, internal remedies; fourth, external and surgical remedies; fifth, the full diet; sixth, the low diet; seventh, the baths, douches, promenades and exercises of other kinds; eighth, dismissal or death.

Besides this, the house student should have another register containing the names, surnames, age, birth place and residence; professions and occupations; date of admission, dismissal or death; history of the disease, with the causes or circumstances that might have influenced its developement, and lastly, the kind of termination it had; to which should be added a brief summary of the treatment, and an account of the post mortem examination.

The physician should have control over the physical and moral government of his charge, the medical and personal police, that is, the quantity of food and drink to be allowed, the classification of the patients, the place and duration of confinement, and the degree of liberty to be granted in door and outside. He should also prescribe the means of restraint, en-

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couragement and recompense, the different kinds of work or amusement, and the manner in which the servants are to speak and comport themselves towards the patients.

Relations, friends or strangers should not be permitted to enter without his permission. At St. Lazarus near Reggio, Modena, he reports to the president the purchases wanted for the establishment, and if approved of, they are made by the intendant or housekeeper.

The physician should designate the convalescents of both sexes, and the patient who may be admitted to the common table.

The condition of the rooms in relation to their salubrity, the period for making fires, recording the degree of temperature as noted by the thermometer, and the examination of the dead bodies, all fall within his jurisdiction. Every month he should inspect the medicines, and when he thinks proper, the different kinds of food and the kitchen.

The baths and *douches* should, if possible, never be given but in his presence. In case of absence, his place should be supplied by the assistant physician or director.

In conclusion, we again repeat, that if it is desired that the establishment should be well kept, and should be possessed of a well merited reputation, not only must the physician be honored and respected in the asylum, but he must be known abroad for his knowledge and success. There can be no true celebrity without talents.

Notice of the Asylum of St. Yon at Rouen.

In 1833, there were 445 insane patients in the asylum, namely, 210 men and 235 women.

One hundred and seven patients entered during the year 1833, 54 men and 53 women; 77 left the asylum, 39 men and 38 women; 40 recovered their reason; 17 men and 25 women died.

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The sources of Revenue.

1st.	Patients paying 450f. (from other *departments,*)	51
2d.	Patients of the *department* (belonging to rich *communes*, possessing 10,000f. income, or to *communes* containing a hospital,) paying 350f.	173
3d.	Indigent patients, of whom there pay the regular demand,	38
	Others, paying half board,	20
	Others, received free,	63
4th.	Boarders paying at the rate of the 4 classes,	100
	Total,	445

Expense of the Boarders.

	Per Diem.	Per Annum.
1st Class,	f. 2 70c.	f. 988 20c.
2d "	2 20	805 20
3d "	1 60	585 60
4th "	1 09	399 00

Salaries of the Administration.

Director, lodging, light and fuel,	4,600
Physician, "	4,600
Surgeons, *ad honores*,	fees.
3 Medical students, *(internes)* lodging, fuel, light, washing, food, each,	400
Chaplain, as above,	500
Steward, lodging, fuel, light and washing,	1,500
Under steward, " "	600
Principal clerk, non-resident,	1,500
2 Messengers, " each	700
Firemen and bath keeper, food, clothing, lodging, fuel,	350
Porter, " "	300
Gardner, " "	500
Cook, " "	450

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Infirmary.

17 Nuns and a superior, each	200
8 Lay-sisters, each	150
1 Chief attendant, food, lodging and clothing,	500
6 Attendants or nurses of 1st class, clothing and food, each	250
6 " " 2d class, " "	200

Outlays of 1833.

Church services,	f. 645 95c.
Offices,	867 60
Salaries paid to the employed,	25,138 64
Food,	90,043 57
Medicines,	4,151 80
Barber,	1,082 00
Tobacco,	4,465 00
Linen, shoes,	20,899 65
Washing,	4,264 90
Furniture,	8,893 13
Fuel,	12,917 70
Light,	1,865 77
Buildings, repairs of, &c.	9,401 90
Gardens,	1,901 43
Incidental,	725 53
Total,	187,264 57

The *department* of the *Seine—Inferieurs*, allows 30,000 francs per annum, and also a second sum varying from 18 to 35,000 francs.

The number of insane at present is	430
The number of persons charged with their care,	57
Total,	487
which gives to each person, per annum,	f. 384 52c.
and per diem,	1 65

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Notice of Charenton.

There are three classes of boarders in this asylum; the first pay 1300 francs; the second 1000 francs, and the third 720 francs.

The government pays an annual sum of 40,000 francs for 68 entire places, 29 half do. and 10 do. at different prices. The military of every rank are maintained at the expense of the war and marine departments. Lastly, the asylum possesses a revenue of its own, amounting to 15,500 francs.

The several salaries are as follows:

Director,	f. 6,000
Chief physician,	4,000
Chief surgeon,	2,000
Assistant physician,	1,500
Treasurer,	1,800
Steward,	1,500
Superintendent or inspector,	1,500
Du prepose aux Receptions,	600
Resident Medical students,	300
Chaplain,	600
Inspectress of the linen,	400
Clerk,	800
Messengers,	600
Office servants,	250
Total,	22,450

The director, chaplain, assistant physician, house keeper, steward, inspectress of the linen, steward, the medical students, the clerk and messengers are furnished with lodging, food, fuel, light and washing, at the expense of the establishment. When the chief physician lives in the house, he is furnished in like manner; if he resides in Paris, an annual sum of 2000 francs is allowed for carriage hire.

The rate of wages allowed to the nurses and servants is determined by the director. He is also empowered to give rewards to such of all those under his command who display

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uncommon zeal and assiduity in the performance of their duties; provided they do not exceed the tenth part of the allowance, 600 francs, of and over, of the fourth part of the wages under 600 francs. These rewards are taken from the funds of the house that have accumulated upon the sums paid by boarders.

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Art. XI. *Physiological explanation of the* Beauty of Form, *by* Benjamin F. Joslin, M. D. *Professor of Natural Philosophy and Lecturer on Anatomy and Physiology, in Union College, N.Y.*

(Communicated by the author.)

I shall consider neither moral beauty nor that part of the beauty of material objects which depends on association. My remarks will therefore have no special reference to the beauty of living, intelligent and moral beings.

There is in objects a kind of beauty which is intrinsic and physical, which belongs to them in every association, and whether at rest or in motion; such is the beauty of colour, and that of configuration. The contemplation of the beauty of colouring and of form gives physical pleasure, i. e. physical as opposed to mental, but physiological as opposed to physical. Employing physical in its comprehensive sense, I say, that this physical pleasure attending vision is of two distinct kinds; 1st, that which depends on the character of the impression on the retina and consequently on the intensity and nature of the light, and 2dly, that which depends upon the form of the object and consequently on the muscular actions employed in tracing its outlines. As the latter constitutes the proper subject of this essay, I shall dismiss the former with a single remark.

Some colours are more agreeable than others, but these differ with different eyes, and with the nature of the colour to which the eyes have been previously exposed. A blueish green relieves the eye when over-excited with red, and a mild red is agreeable after the protracted action of intense green; and in general, the complementary colours are most agreeable in succession. Again it is well known, that no kind of light is painful unless excessively vivid; we are pleased with a mild radiance in objects of every hue, from the whiteness of the moon to the crimson of the setting sun. But is there no

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other physical property by which these luminaries directly contribute to the gratification of taste? It is true that light, abstractedly from all objects is agreeable, and agreeable on the same principle that sweetness is to the taste, i. e. from the mere character of the nervous impression. But this is a pleasure merely passive, and in an active being it is perhaps, on that account, one grade lower than the gratification afforded by the beauty of form, and is more allied to the gross pleasure of literal taste. Hence we scarcely employ a figurative expression, in declaring that light is sweet. But the highest degree of physical gratification is not enjoyed by the eye, unless this agreeable excitant proceeds from an object of beautiful form. "Light is sweet," but "it is a pleasant thing for the eyes to behold the sun." What is the source of this additional pleasure which we receive, when light proceeds either by radiation or reflection from regular curvilinear objects?

I shall offer what I believe to be an original and satisfactory explanation of the beauty of form, on principles purely physiological. It is based on the proposition, that the action of every muscle is attended with a sensation which is at first agreeable, but which, if the action is continued for a short time with intensity and without intermission, becomes painful. That there is pleasure attending those varied motions which depend upon the actions of different muscles in succession after intervals of rest in each, we know from our own consciousness as well as from that instinctive propensity to play which we observe in children and young animals. That the prolonged action of a muscle is painful, we may readily convince ourselves by endeavoring to hold the arm for some time at right angles with the erect trunk. With the arm in this position, a pound weight on the hand or even the weight of the arm itself becomes in a few minutes almost insupportable. We presently begin to feel pain in the shoulder and anterior part of the arm, the former from fatigue of those

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muscles which originate from the scapula and keep the os humeri elevated, and the latter from fatigue of the muscles which originate from the scapula and os humeri, whose muscular fibres are in front of the os humeri and by their contraction elevate the fore arm in consequence of their tendinous attachment to its bones. Yet a man may labor all day with his arms without this painful sensation; because a muscle requires but momentary rest, in order to regain that degree of energy which is momentarily lost by action.

None but an anatomist can duly appreciate the variety of separate actions, on which depend the motions of a single limb, and the consequently numerous opportunities of rest which the muscles enjoy. To the superficial and unscientific observer, an arm is an arm; it is a single member which may be fatigued by a day's work and recruited by a night's rest. But to the anatomist the arm is a complex object, and its muscular energy is that of its component muscles, each of which may be fatigued by a minute's action and recruited by a minute's repose. It would be easy to extend this farther, and state reasons for believing that the component fasciculi and fibres of an individual muscle act still more transiently and that their momentary and successive actions constitute the action of a single muscle.

But waiving this refinement, it will be sufficient for our purpose, to consider a single muscle as having a simple action, an action which cannot be sustained with uniformity a minute of time without actual pain, nor a second of time with positive pleasure. This however, is not to be understood as an attempt to fix these limits with precision. To express the law in more general terms, as we diminish the duration of a muscle's action we diminish the pain until we arrive at an action whose attendant sensation is neutral, i. e. neither painful nor pleasurable; as soon as we have passed that point and have begun to execute motions a little more transient, the attendant sensation becomes positively pleasurable, and the pleasure increases as the separate actions be-

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come more transient. It is not necessary to infer that there is attending each action of shorter duration a pleasure exceeding that which attends each action of greater duration; for the more transient actions are, in a given time more numerous; so that with the same amount of pleasure for each muscular contraction, the amount of pleasurable sensation in a given time—say a second—would exceed the amount attending the less frequent and more prolonged actions in the same period: a greater number of separate impressions become—so to speak—crowded together and condensed, and thus produce a more vivid pleasure. Several contiguous impressions thus conspire to heighten the contemporaneous effect, inasmuch as we are unable to distinguish those impressions which are made at very short intervals on the muscular sense, any more than we are those made at very short intervals on the retina. We have an example of the latter in the familiar experiment of swinging a coal of fire in a circle, and in various optical instruments for combining colours and images.

I shall not here stop to enquire into the differences which may exist in the duration of pleasurable muscular action, whether in different individuals, at different times in the same individual, or in the different muscles of his body as compared with each other.

The proposition which I have endeavoured to establish is, that there is a neutral point to which, if constant action is prolonged, its pleasurable character begins to be reversed; that the vividness of the sensation increases with the distance from this point, being on the one side pleasurable, on the other painful; the more transient the actions are, the more pleasurable; the more prolonged they are, the more painful.

I am of opinion that this physiological principle is susceptible of interesting applications to a class of pleasures, which metaphysicians have regarded as exclusively mental and dependent upon certain supposed ultimate principles of the constitution of mind, principles not resolvable into others more elementary. As physiology shall advance, it may be expect-

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ed that many of these imaginary elements will yield to its searching analysis. Whether the writer has been so fortunate as to resolve any of the generally admitted elements of mental taste, the reader will be able to judge from the sequel.

As preparatory to the consideration of the beauty of form, it will be necessary to give an explanation of the *gracefulness of motion.* Although this has been vaguely and in part referred to ease of execution, yet the physiological principle on which ease of execution depends, not having been clearly understood and distinctly stated, the gracefulness of *all* motions could not be referred to their true source. Thus writers on taste have been under the necessity of admitting, as a distinct and independent source of gracefulness, the *curvilinear direction* of motions, and have been able to generalize this fact no farther than by referring it to the beauty of curved forms, which beauty was considered an *ultimate* fact. In applying the principles above developed, to the explanation of the pleasure or pain attending the contemplation of particular motions, we shall defer for the present the investigation of the intrinsic beauty of curved motions, which is the same as that of curved lines, and assume that in general, those motions which are physically pleasurable to the agent are agreeable to the observer. The pleasure or pain of the agent will engage the sympathy of the observer; for he associates the observed action with his own experience. To make a single application, suppose a public speaker extend his arm horizontally and move it slowly in a horizontal position, through one third of a circle. This motion would not appear graceful. That it would not be performed with perfect ease, any one might prove by experiment. The principle difficulty is in preserving for a long time the horizontal position. The following is a physiological explanation.

The muscles of the shoulder which support the arm are fatigued by prolonged exertion. If the palm is turned upward, the flexor and supinator muscles of the fore arm, in addition to the muscles of the shoulder suffer from a similar

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prolonged action, and the gesture being still more irksome to the actor, is for that reason more disagreeable to the spectator. But before proceeding, I will here anticipate an objection. Why should not short and rapid reciprocating motions be on those principles agreeable? I answer, they are, when the arm hangs loosely by the side, and being left to the action of gravity, oscillates slowly a few times through short arcs, and like the pendulum, independently of muscular exertion. But why are not those short reciprocating motions which result from the actions of antagonist *muscles* equally agreeable? Do not the muscles rest in succession? I answer, it results from the inertia of the limb. From this property much force is expended when the motion is reversed in the same plane. Hence such motions demonstrate muscular energy, and are appropriate expressions of those passions which inspire it. The head may be shaken in disapprobation, the fist in rage. But suppose the motion to be changed into different planes; the oftener it is changed the greater the pleasure, both to the actor and the spectator. This leads us to consider the ease and gracefulness of curvilinear motions.—Their ease and gracefulness depend on two causes: viz, the transient and successive actions of different muscles, and the avoiding of the destruction of the momentum of the body or limb by its curvilinear course.

We are now prepared, by the foregoing principles to investigate the *beauty* of *form*. Here again, the metaphysicians have distinguished the forms intrinsically beautiful, from those whose beauty in particular relations of bodies is referrible to utility. There is ground for a distinction; yet it may not be impossible, in most instances to refer even the latter class to some kind of muscular action; convenience and inconvenience so often imply the necessity of different degrees either of its duration or intensity. Passing over this point with this hasty allusion, I shall, agreeably to the plan first proposed, confine myself to the *intrinsic* beauty of forms. The investigation may be conducted independently of the

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phrenological question, whether the mental contemplation of form depends upon a particular part of the cerebrum. It is equally independent of the question whether the appreciation of figure by the eye *necessarily* depends upon the education of sight, i. e. the assistance which it has received from the hand and other muscular and nervous parts which are foreign to the eye and concerned in the exercise of touch.

Our ideas of figure have three sources; 1st, impressions on the tergumentary system; (i. e. the skin, &c.) 2d, impressions on the retina; 3d, the internal feeling attendant on those muscular actions which *regulate* those impressions.

To the infant and uneducated eye, a curved surface and a plane present the same appearance, with the exception of a difference of shading: no difference is perceived except in their colorific properties. If an infant, as his first exercise of feeling, grasps in his hand a little ball, he receives impressions on different points of the skin, and derives his first notions of form from the sense of touch. But if a larger ball is first lying near him, he extends to different parts of its surface his fingers or hands, according to the size of the ball, and finds a different extent as well as direction of motion necessary to reach its different parts. The muscular sensations attending the muscular actions necessary to reach different parts, constitute his primary notions of *distance* in general and of form in particular—I say, of form in particular; for the *form* of a body depends simply upon the relative *distance* and *direction* of different parts of its surface. The one part of the examination which we have considered is cutaneous, the other muscular.

Subsequently to this examination, the infant, on *viewing* the ball, associates the impressions made by its different shades on his retina, with the cutaneous impressions and the muscular sensations received by the previous tactile examination. After a tactile and ocular examination of other balls, he learns to detect their forms by *sight alone*. Having examined various solids, surfaces and lines, his general-

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izations enable him to distinguish forms in *general* by vision alone.

But of the ocular examination necessary for this general purpose, i. e. the determination of forms in general, we have considered only one part. The most important part remains to be described. I have deferred it, partly to avoid complexity, and partly because it is not employed to distinguish, from one point of view, a solid body from a plane surface. In the ocular examination, we have considered only the effect of light and shade. But this would never enable us to determine the forms of bodies, except in parts which reflect specularly, or in parts and situations where the form affects the amount of incident light, or in bodies so distant, as to render sensible that effect of interposed air on which depends aerial perspective: for in case of radiantly reflecting bodies, at moderate distances, and with equal illumination, every part of the surface appears equally bright, whatever be the difference of inclination or distance. Hence the form of a solid can be determined by the eye in no other way than by viewing it successively on different sides, and considering all its projections or profiles. And as the form of a profile depends simply upon that of a line, it only remains to investigate the principle on which we determine by the eye the form of a line.

Now, the eye is so constituted, that we can receive a distinct and vivid perception only from images formed on the central part of the retina, where it is pierced by the optic axis; as the image is further removed from this point, the perception of the corresponding object, or corresponding part of an object, becomes less distinct. This, to a certain extent, affords an explanation of the fact, with which, without any knowledge of the interior of the eye, every one must be familiar, viz: that distinct vision requires a certain position of the eye-ball in relation to the direction of the object. With regard to the first generalization of this phenomenon, there is no discrepancy of opinion. But in advanc-

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ing a step further in the theory, the philosopher and physiologist have taken different routes, and each assigned a separate reason for the indistinctness of oblique vision. The natural philosopher has ascribed it to the property of lenses of conveying less accurately the oblique pencils, whilst the physiologist has ascribed it to an inequality in the sensibility of the retina, a sensibility which is supposed to diminish from the centre towards the circumference in all directions. There is little doubt that it must depend on one or the other of these causes, or on the combined influence of both. The application presently to be made is not affected by the decision of this point.

For those who are unacquainted with anatomy, a concise description of the muscles of the eye-ball is here inserted.

Six muscles are attached to its strong external coat, the sclerotica, for the purpose of moving the eyeball in its socket, to which the muscles are attached at their fixed extremities. Two of these muscles are directed obliquely outwards and backwards, from near the anterior and internal part of the socket, and attached to the eye-ball. This is the original direction of one of them, the inferior oblique, which passes under the eye ball, whilst this direction is given by a kind of pulley, to the other, the superior oblique, which passes over the eye-ball. It would be tedious to relate the discrepancies between authors in regard to the directions in which these two muscles move the eye. This is of little importance in the present inquiry, especially as there are various reasons, in addition to the diminutive strength of these muscles, for believing that they have little or no agency in the *voluntary* changes produced in the *direction* of the optic axis.

The changes which we voluntarily make in the direction of the optic axis are produced chiefly, if not entirely, by the action of four muscles, whose fixed extremities are attached to the periosteum of the bony socket near its posterior part and not far from the point where it is entered by the optic

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nerve. Each proceeds forwards between the socket and the eye-ball, and terminates anteriorly by a broad and thin tendon which is expanded upon the sclerotica, to which it is attached near the cornea. Their places of insertion are nearly or exactly equi-distant, and they turn the pupil toward the sides on which they are respectively situated. These four are called the recti or straight muscles. After this description of their common character, their individual location and mode of action will be readily comprehended. The rectus inferior lies below the middle of the eye, and rolls it downwards, i. e. depresses the cornea and pupil; the rectus superior, its antagonist, is opposite to it, and rolls the eye upward; the rectus internus is on the inside of the eye, and rolls it inward; the rectus externus, which is the largest, is opposite to the former, and rolls the eye outward.

For examining the form of a line, as well as that of the outlines of any other object, it is necessary to direct the optic axis to its different points in succession; this is always done in a first and critical inspection, and in many instances in which we are unconscious of the motion. Hence, as the actions of the four muscles situated respectively at the lower, outer, upper and inner parts of the eye, effect all its voluntary motions, it is essential in determining by the eye, the form of a line, that one or more of these muscles shall direct the axis successively to its different points.

Of the analysis of the forms of bodies, by which they were reduced successively to plane figures, lines and points, we are now prepared to retrace the steps through points, lines and figures, in relation to the relative pleasure afforded by these classes and by the different orders of each class as compared with each other. In the ordinary state of the muscular system, and within certain limits, the motion of the eye in any direction is pleasurable, as compared with that inaction of the muscles attending indolent vision in a fixed direction, or with that incessant and equal, but not necessarily energetic action of them all, requisite for the preservation of

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their equilibrium during the accurate and prolonged inspection of a minute dot whose figure is inappreciable.

A certain intensity and duration of exercise is not labor; and of all voluntary muscles, these ocular ones seem most disposed to what, in a loose and popular sense, might be termed incessant action. To the infant this is one of the earliest stimuli to observation; and the power of directing the eye is in some instances at least sooner acquired than is generally believed by physiologists. I have seen it possessed in a tolerable degree by an infant a day after its birth. Ordinarily this education of these muscles requires more time. Whenever the power of directing the eye is acquired, the tracing of a line will, to a certain extent and for a certain time, afford some degree of positive pleasure; in other words, any short line will possess some degree of positive beauty, and the infant becomes conscious of an emotion of which he was previously ignorant,—the emotion of beauty of form. A point awakens no such emotion; it never will; it can possess no beauty. It must be recollected, that this has been restricted to minute points of inappreciable form. Circular dots will be considered under the head of figures. The colorific property of a dot as compared with that of the ground on which it is placed, may afford that kind of ocular pleasure which is foreign to the present inquiry.

From points as compared with lines, we naturally proceed to *lines as compared with each other.*

When the head is erect, in examining a *straight horizontal* line we employ one of the lateral recti; if the line be vertical we employ the rectus inferior or superior. In either case, but one muscle acts, and that continuously. The muscle is not relieved, and its action is not attended with the maximum amount of pleasurable sensation. When the vision has been extended along the whole line, if we then immediately proceed to examine it in the opposite direction, the opposite rectus must at once exert a force sufficient to overcome the *momentum* of the eye-ball, and then exert a continuous action. Both these circumstances are unfav-

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ble to pleasure. If the line is *oblique*, one lateral together with one inferior or one superior muscle is exerted, and the same principles which have been applied to the single muscles, apply to the muscles acting in pairs; the muscles of each pair acting simultaneously and continuously, and being, in the case of repeated examinations, opposed by the momentum of the eye, or in other words, the *inertia* of the eyeball in motion. Oblique lines should be rather more agreeable than vertical or horizontal ones, as two muscles act together. The fact of the superior beauty of lines inclined to the vertical, so far from being explained, has not, perhaps, been stated. From the physiological theory, we should not expect to observe the same difference between them as between any straight line and a regular curve; for the occasional repose of a muscle conduces more to its relief than the simultaneous and uniform co-operation of *another* muscle; and the advantage which an oblique line has over a horizontal one in regard to intrinsic beauty, is in numerous instances compensated by extrinsic relations. For example, in all structures the appearance of stability is conducive to beauty; and stability, in most kinds of architecture, requires many vertical and horizontal lines. On this principle, the beauty of a tree is impaired by an inclination of its trunk, but not by the inclination of its branches in opposite directions. The latter affords some confirmation of the physiological doctrine as applied to oblique lines; yet the beauty of some of our finest trees, for example, the elm, (Ulmus Americana) is in a greater degree referible to that successive and variable action of different muscles, which is now to be considered in its application to

The Beauty of Curved Lines.

As from the foregoing analysis of the vision of straight lines in general, it results that they are deficient in the elements of ocular agreeableness, in other words, of beauty; little more need be said of regular and gentle curves, than

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that the survey of them is not attended with the above mentioned disadvantages. In viewing a regular curve, no muscle of the eye-ball acts continuously and uniformly, but enjoys partial relief by remissions, or total relief by intermissions of its action; and the regularity of these remissions and intermissions, as well as the equal distribution of exercise is promoted by the regularity of the curve. Acting in succession, the muscles afford mutual relief after actions of such short duration and variable intensity, as to afford positive pleasure; and in this *muscular pleasure* of the eye consists the *beauty of configuration.* It would be easy to demonstrate from numerous examples in myology, by examining the distribution of different muscles and the fasciculi of the same muscle, that nature has constructed and arranged these organs in the limbs and body generally, with reference to these same general principles, and with similar results. The general result of moderate exercise, in muscles thus constructed and arranged, is a pleasurable sensation, which may be similar if not identical in this entire class of organs; yet it is not denominated *beauty* except in the eye, an apparatus which, whilst it participates in this muscular pleasure, enjoys others which are peculiar to itself, and which are derived from the colorific properties of bodies. These two distinct classes of ocular pleasures constitute beauty. Though heterogeneous in character and dissimilar in location, their location is not remote; and as they are both exclusively experienced during the exercise of the same general function, i. e. vision, it was natural to confer on them a common name.

The successive and accurate survey of distant points is not however invariably requisite to a degree of similar pleasure, in viewing a figure of such small angular extent as to be instantly recognized by one location of its image, as analagous to a larger one whose survey has directly afforded muscular pleasure. Although I thus recognize the influence of association, the facts of this very case afford an interestin-

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confirmation of the physiological theory; for a large circle or ellipse is more beautiful than one of diminutive size. The beauty of the one is original, its influence is direct; the beauty of the other is in part borrowed, and this part is weakened by reflection. Or to express it more literally, the one excites a pleasurable sensation, the other suggests a similar idea; the one affords a *perception*, the other a *conception* of beauty. Such, even with similar color and brilliancy, would be the difference between the full moon and a circular dot (·) or period; such the difference between a rainbow and a diminutive arc (⌒), a short accent inverted. Here the critic might be inclined to charge us with confounding the beautiful with the sublime. But the fact is, that criticism has constructed the sublime—as it has the beautiful—from heterogeneous materials, one of which is identical with one of the elements of beauty, and should in a physiological arrangement, be referred to the same class. In many instances a magnifying instrument will disclose minute irregularities and blemishes; but in every other case, physiology would show, that within certain limits, to magnify a beautiful *object* is to *magnify beauty*.

The foregoing statements of general principles preclude the necessity of minute details in relation to particular curves. I shall at present consider those which do not return into themselves, so as to constitute the outlines of figures in the geometrical sense. Let us first select a semi-circumference, for example that of a rainbow of maximum dimensions. In tracing it once, we employ three out of the four muscles. They are brought into action successively and rapidly, but not abruptly. All these circumstances are favorable to pleasure. Yet they are not conducive to it in the highest possible degree; for each muscle acts only once unless the examination be repeated; and in case of its repetition, the momentum of the eyeball is destroyed in stopping and reversing its motion. The waving line, as Hogarth's line of beauty, obviates the first difficulty. This ensures not only the successive action

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of different muscles, but a repetition of action in the same. If the line forms a number of equal waves, these repetitions will be proportional to the number of waves, and will alternately and totally relieve, at least two muscles, and allow, in the action of a third, regular remissions of intensity at equal intervals. We have proved then, that on this physiological theory, a semi-circumference possesses more of the elements of beauty than any straight line, and a regularly waved line more than either. These results are conformable to experience. The oblique muscles are believed to be involuntary; but if their influence were admitted the same mode of reasoning, with only slight modifications would be applicable, and we should be conducted to similar results. It would be easy to make an application of a similar principle to the muscles of the neck which move the head and arm, and are occasionally called into action in the survey of curves of great angular extent.

In applying physiological principles to the vision of regular as compared with *irr*egular curves and irregular lines generally, we shall arrive at conclusions equally conformable to experience. The irregular curve requires unequal and irregular exertions in the same and different muscles of the eye. Their actions can with more facility be regulated to trace a regular than an irregular curve. If there is any difficulty in admitting this, it will vanish on comparing the ocular with other muscles. We have only to compare the different degrees of facility with which we can trace with a pen a regularly and an irregularly curved line, both of them already drawn on paper. The same principle applies to the muscles of the trunk and of the inferior extremities. We readily walk or run in a curved path, if the curvature is regular; but to run in an irregularly curved path is difficult. For a similar reason the vision of an irregular curve is less easy and consequently less agreeable. Indeed, to trace a rainbow with the eye is no less a muscular action than to trace an ink line with the pen or a path with the feet.

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These analogies then, are satisfactory in relation to curves, as compared with each other; but they may be thought to prove too much in relation to curved as compared with straight lines. It may be asked whether straight lines cannot be traced by the hands or feet with more facility than curves. In removing this difficulty, it is necessary to distinguish between two kinds of facility; the one mental, the other muscular; the one refers to the facility with which the mind *regulates* muscular action, and the other to the *sensation* resulting from the intensity or duration of that action.. Now, the regular curve has the advantage of the irregular in both respects. It is more easy to guide the eye along it, and the motion requires a more regular alternation of muscular action and repose. But the straight line has the advantage of the curve in only one respect, i. e. in the mental facility; and this is more than compensated by the greater muscular labor of execution—at least, in the case of an adult, who has learned to direct his muscles with facility. The experience of the infant can be adduced on neither side; but I observe in passing, that the foregoing considerations would render it probable, that the relative beauty of straight and curved lines is not the same with infants as with adults. At the commencement of the education of their muscles they may even prefer straight ones.

Many other arguments in support of the above views might be drawn from the motions concerned in drawing and walking, the motions of the trunk and of the superior and inferior extremities; but as their elements are incomparibly more numerous than those of the ocular motions, their analysis might prove tedious. A few hints must suffice. To trace, for a length of time, curved lines on paper, occasions less fatigue than tracing straight ones. Thus the analogy between the hand and eye is not opposed to my doctrine in relation to straight lines as compared with curves, any more than in relation to curves as compared with each other. Secondly, if the lines most easily traced by the hand have a curvature

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less uniform than the line of beauty, the cause can be found in the absence of that symmetry in the muscles of the fingers and hand which exists in the recti muscles of the eye. The globular form of the eye and the circular arrangement of similar and equidistant muscles render rotation as easy in one direction as another; consequently that deflection which is most agreeable can never be very abrupt in one place and very gentle in another. But the fingers, by the structure of their joints and the arrangement of their muscles and tendons, are less adapted to lateral motion, their motions being chiefly those of flexion and extension. In writing, the lateral motions are effected chiefly at other joints and in parts less favorably constructed and circumstanced, for free and rapid motions. Hence it is easier to write letters whose curvature is a maximum at the inferior or superior extremities. But let us select a joint, which, in its spherical form, and the circular arrangement of its muscles, is analogous to the eye; for example, the shoulder joint. I think it will be uniformly found, that in the use of this joint, the curves most readily traced, are those of gentle and nearly equal curvature, and being such as are most easily traced by the eye, they would appear more beautiful than those drawn by the fingers with the same education. For example, let a man, without bending his wrist or elbow, draw various lines with a light stick or cane on the surface of snow: the lines most easily drawn (or most easily traced if already drawn,) will be curves of considerable beauty, and nearly equal curvature; such as waved lines and spirals and looped curves. Circles and ellipses would also be among the figures with most facility and precision traced, and especially in case of repeated tracing; but we are not at present considering figures in the proper geometrical sense of the term. In writing letters by the above method, a succession of e's, would be more easily drawn than a succession of i's, or a zig zag line with acute angles.

Thirdly, as to the objection drawn from the case of the feet, I answer, that in running, a sufficient curvature is al-

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ready provided, in the alternate use of the two feet. When we run uniformly and regularly in a narrow path, nominally straight, we press successively its opposite sides; and a regularly curved line might be drawn connecting all our footsteps. Moreover, the centre of gravity of the human body actually does move in such a line, a line of double curvature, continually bending up and down as well as to the right and left.

From terminated lines which are the elements of the outlines of *figures*, we naturally proceed to the latter, in which lines return into themselves. To institute a fair comparison between terminated lines and figures, the component lines of the figure should be as beautiful as the terminated lines with which they are compared. With this precaution, physiology will conduct to the conclusion, that figures are more beautiful than terminated lines. For the survey of any figure requires the successive action of all these ocular muscles, and a repeated survey requires no reversal of the motion. This conclusion is confirmed by the analogy of other motions. For it is more easy to run in a path which returns into itself, than to run repeatedly and rapidly backwards and forwards along the same short path. The result is the same and the analogy still closer with a cane moved in the snow by the shoulder joint. I infer that a figure is, caeteris paribus, more beautiful than a terminated line. From such considerations it would be evident that a complete circle or ellipse is more beautiful than an arc. This conclusion is confirmed by universal experience.

We may apply the same principles to *figures as compared with each other*. Here we shall find the advantage on the side of those which are geometrically regular. The physiological theory is also confirmed by the comparison of curvilinear figures with polygons. It is here only necessary to refer to the previous discussion in relation to the superior beauty of their elementary lines. We perceive that the circle and ellipse must possess in great perfection the essentials of beauty. A similar conclusion would be drawn from the

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analogy of other muscles. Incomplete as this analogy is in some respects, yet by comparing circles with squares, ellipses with rectangles and regular polygons with irregular ones, as to the facility with which they might be traced with the body, and especially with the extended arm, we should by the application of these physiological principles, arrive at results which would generally accord with the experience of mankind in regard to their relative beauty.

From figures, the transition is natural and easy to *solids* or bodies of three dimensions. The form of a body depends on those of all its faces and sections; and these last are plane figures. The beauty of a regular polyhedron depends partly upon the beauty of its bounding polygons, when these are sufficiently large to be distinctly appreciated, and partly upon the regularity of numerous sections or projections as presented by it under different aspects. If the number of faces be great compared with the magnitude of the polyhedron, the eye traces the projection rather than the individual faces, and the beauty, so far as depends on the latter, is in a great measure sacrificed. It follows, that an augmentation of the number of faces may diminish the beauty, and that the relative beauty of different polyhedrons will be different with different angular magnitudes. The general influence of magnitude on beauty has been already stated. I acknowledge that this was an unexpected result of the application of physiological principles; yet having once generalized it, I now find it confirmed by *previous* experience. For example, within certain limits, the larger of two circles, is the more beautiful. The proposition in relation to polyhedrons is probably so obvious from certain vague considerations, as not to have been so readily overlooked. The elliptical sections of a regular spheroid are all highly beautiful, but its sections are not all elliptical. Unless the spheroid be in certain positions, the sphere possesses still higher beauty, as presenting the same circular and highly beautiful outline in every position; although a variety of positions is not essential to the perception

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of its peculiar beauty, whenever the observer has learned by different methods, and especially by different degrees of convergence of the two optic axes, to estimate the relative distances of the different points of the visible hemisphere, and thus to recognize the spherical form. I will only add, from the analysis of the beauty of the circle it is evident, that within certain limits, to magnify a sphere is to magnify its beauty.

The relative beauty of the sphere and spheroid, and of the spheroid as compared with itself in different positions, is modified by *symmetry*. The principle of symmetry, is in some measure distinct from any other heretofore considered. It may be treated under the heads of 1st, geometrical symmetry, or symmetry of form; 2nd, of symmetry of position.

Symmetry of form, though implied in geometrical regularity is not identical with it, and requires a separate consideration. The beauty of forms geometrically symmetrical, in contradistinction from those deficient in the correspondence of opposite halves, depends upon two similar series of actions in different pairs of muscles. For example, the survey of an ovate leaf, or indeed that of almost any vegetable leaf,—so numerous are the provisions for our gratification—requires for its opposite halves two series of muscular actions, the different parts of the one corresponding with those of the other in duration, intensity and order of succession. The gratification in this case results from the harmony of muscular sensations individually pleasurable. The agreeableness of this harmony may depend upon a principle more psycological than that of the agreeableness of its elementary sensations. Yet the former is to a certain extent susceptible of a physiological generalization. This harmony would probably have been impaired by any considerable inequality in the distances between the points of insertion of the recti muscles, or in the strength of the antagonists. It is a curious coincidence, that in both these respects, these muscles are more nearly symmetrical than any others in the human body. Physiology, then,

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explains not only the agreeableness of the elementary sensations, which give rise to the perception of beauty in regular curves, but unfolds the provisions for two similar series of such sensations not only in figures simply regular but in those which are simply symmetrical, and in those which are both symmetrical and regular. The principles of muscular action explain the agreeableness of a rapid succession of varied actions equally distributed among the muscles, and the structure of the optical apparatus explains why the curvature and regularity of an object require such actions in vision. Again we discover in the symmetrical structure and arrangement of the ocular muscles, a provision for two similar series of pleasurable sensations in the survey of a symmetrical figure, in whatever position it may be placed, provided it retains its symmetry with respect to some visual plane. The coincidence between the location of the ocular muscles diametrically opposite, on the one hand, and our propensity to compare the opposite halves of bodies, and the pleasure afforded by their similarity on the other hand, is curious, and to a certain extent affords a physiological explanation of the beauty of symmetrical forms.

The foregoing remarks on muscular symmetry have had no reference to opposite sides of the observer's body, though it would appear by the application of similar principles that the pleasure resulting from symmetrical objects might be heightened by the simultaneous employment of two symmetrical eyes. Will such an arrangement contribute to explain symmetry of position?

Is there not in *symmetry of position*, an intrinsic beauty which conspires with the beauty of stability? With our heads erect we never enjoy the maximum beauty of a symmetrical object unless the symmetry is preserved in relation to a vertical plane. To incline a regular pentagon, a parabola or ellipse, or to place a spheroid in an inclined position on a pedestal—be the equilibrium ever so stable—is to deprive it of a portion of its beauty. Let us here anticipate an objection. It must be conceded that the verticality of

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one of the bounding lines of the projection of the trunk of a tree, is not intrinsically beautiful; but the magnitude of the tree, and especially of its collective branches, enables us to enjoy the symmetry of both with respect to a vertical visual plane, and affords—what could not be afforded by a line of insensible width—that pleasure in its symmetrical position, which far more than compensates for the beauty of obliquity. The latter is advantageously conferred on the branches, in which, in consequence of their inferior magnitude, the former would be of less relative importance. Frequently, the distinct limbs exhibit the beauty of obliquity, whilst the leaves, intermingling with those of neighboring boughs, hide the defect of symmetry in each, but complete the perfection of symmetry in the collective whole. Now suppose this symmetry of the collective boughs and leaves to be that of a cone: would not the beauty be impaired by its lateral inclination, even were this effected without disturbing the centre of gravity? I am inclined to think it would, even if the appearance of stability were preserved. If this be a fact, whence this prerogative accorded to the vertical visual plane as a standard of position? Perhaps anatomy and physiology may afford a clue to the solution of the problem. Is it to be chiefly referred to the location of the muscles exactly at the inferior, superior and lateral parts of the eye, or to the symmetry of the two eyes, provided with similar muscles, and symmetrically arranged with reference to the mesian plane? These coincidences seem curious, but the merits of the general theory of the beauty of form will not be affected by a decision of these questions, or even by a rejection of the assumed facts in regard to the existence of symmetry of position.

The beauty of *variety* would admit of an explanation not very dissimilar to that of form.

The same principles which apply to the beauty of form of inanimate objects are applicable to the paths described by them in *motion*. The intrinsic beauty of their motions is exclusively referrible to sensations in the ocular muscles of the observer,

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whilst the gracefulness of human motions is referrible in part to these, and in part to sensations in other muscles.

It would be foreign to the subject of the present memoir, to consider the beauty of expression of the human counteeance; although this species of beauty is in a great degree referrible to muscular action. That muscular action which belongs to the present topic is not that of the object, but that of the observer. It may be scarcely necessary again to disclaim any design of giving a complete analysis of beauty in general, or to repeat the concession that man's notions of beauty are modified by various associations. The analysis here given of the origin of human conceptions in relation to the intrinsic beauty of configuration, refers it to no relation between external and ponderable objects, nor to any relation between these and man, except that which they sustain to his ocular muscles and through them and their nerves, to the encephalic centre and the immaterial soul.

It would be more curious than useful to examine how far similar relations exist in *other animals.* Wherever the muscular apparátus of the eye is similar to that of man, as it is in many of the higher orders of animals, the animal must enjoy in some degree the beauty of form. As the eyes of insects are immovable in the head, they are not susceptible of this kind of pleasure. As there are not equal reasons for believing them insensible to the beauty of coloring, this consideration may tend to confirm the conclusion before stated in regard to the relative rank of these two kinds of ocular pleasures.

The *final cause* of this arrangement in the human eye would be more interesting. On this point I beg leave to offer one or two reflections.

The benevolence of the author of nature is strikingly manifested in connecting present pleasure with obedience to the natural laws. It has been shown that vision is attended with muscular action which is generally pleasurable. If seeing had required no muscular action, we should have wanted

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one of our present stimuli to the acquisition of knowledge. This stimulus is especially necessary in infancy, and then powerfully prompts to observation, even anterior to the dawnings of intellectual curiosity, with which it subsequently co-operates. We see, in this arrangement, the exemplification of a principle which extensively pervades the laws under which we are placed by the Creator—which is, that mental attainments, as well as other acquisitions, shall require action; and that action shall be attended with pleasure. Whether the acquisition is to be made by the manual labor of the artizan, by the manipulations of the artist, the chemist or the experimental philosopher, by the sedentary student of books, or by the observer of natural phenomena in his original survey of the universe, in every case it is muscular action.

This application to natural theology, has thus far had reference to that degree of intrinsic agreeableness which is common to forms in general. But the laws of Nature specially tend to the production of curved, regular and symmetrical objects and motions, in inorganic, vegetable and animal bodies; and impose the necessity of similar forms in artificial structures. With a different structure and arrangement of the ocular muscles, those forms peculiarly conducive to our welfare and that of the universe, had possessed no peculiar attractions; and we had felt no special impulse of this kind to conform our own artificial structures to those laws of nature, or to investigate many of the most important works of the Creator. Yet neither gravity or any other law of the external world, could have determined the peculiar formation of the muscles of the human eye. We must, therefore, refer their actual structure and location to that Being who gives to the objects of his creative power and to the principles by which he governs them, such a mutual adaptation as conduces to the greatest achievable good. Thus, whilst muscular pleasure originally prompts to the observation of the Creator's works, this observation is re-

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warded and subsequently prompted by a pleasure of an incomparably higher order, of a character purely mental, by the discovery of *moral beauty*, which in rank and refinement surpasses all others. Still, the muscular pleasure of the eye strongly incites to the examination of the numberless forms of beauty in the organic and inorganic kingdoms, such as the symmetrical leaf, the bending bough, the symmetry of the tree itself, that of inferior animals, and of the human form. Or we may extend our view to the circular or undulating horizon, the apparent limits of the apparently round world; or we may elevate the eyes to the arched dome of the firmament, on which the arches of the iris and aurora occasionally confer additional beauty. Or with the telescope we may pierce this apparent limit of upward vision, and discover beyond it an universe of spherical and spheroidal worlds, revolving in circular and elliptical orbits, worlds and orbits which present, even in our diminutive diagrams, a high order of beauty, designed to incite us to the contemplation of these most magnificent works of the Creator.

All this beauty had been lost to man, but for a property of the eye, which, on a superficial reflection, might seem a defect. It is no less true than paradoxical, that the perception of these beauties depends on *indistinctness of vision*. To a being so constituted as to see with equal distinctness by oblique and direct vision, the same forms might be presented, but not as forms of beauty. Has the Creator, then, sacrificed a portion of our perceptive powers to our sensual gratification? I answer no. Has he, then, sacrificed a portion of our *direct* means of acquiring knowledge, to afford an incitement which should ultimately and indirectly enhance our attainments? Again I am compelled to answer in the negative. There is, in this arrangement, no intellectual sacrifice whatever, direct or indirect. This indistinctness of oblique vision, which might seem a defect, I consider an excellence. A simultaneous and distinct impression received from the whole field of vision, would distract the attention

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and preclude a minute and accurate examination of any particular part. But as our eyes are so constituted as to receive a strong and distinct impression only from the images of those objects toward which their axes are directed, and as our minds are so constituted that we can in a great measure neglect the weaker or less distinct impressions, we are able to acquire a more exact knowledge of any part of the field to which we choose to attend. To see every thing at once, would be to examine nothing. Such a constitution of the eye would be to vision what an indiscriminating memory is to the understanding.

The novelty of the foregoing views consists not in the results—in the facts as to what is beautiful—but in the methods by which they are deduced. If the results accord with universal experience, the physiological theory—which is believed to be original—is corroborated. The author has endeavored to preserve the spirit of inductive investigation: but if in some points, the statements may appear dogmatic or the discussion synthetic, his only apology is, that this essay was originally prepared for a lecture. The principal part of it and every thing essential to the main argument in relation to the source of the beauty of form as dependent on the successive action of the muscles of the eye—has been copied verbatüm from a lecture which was read for two years to the classes which have attended the courses on anatomy and physiology in Union College. There is an additional reason for making this statement, founded on the following incident.—About two weeks ago there was handed to the author a short paragraph which was said to have recently appeared in a newspaper. It was stated in this, that Professor Muller of Berlin, in a late lecture—probably unpublished—had offered a simple "mechanical" explanation of the beauty of arcs, of ellipses and circles, referring it to the action of the muscles of the eye ball. In that notice there appears to be no reference to any principle which renders them *positively* agreeable, or the vision of straight lines any thing better.

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than irksome labor. It would, however, be extremely unjust to Professor M. to institute any comparison between the theory of this memoir and the glimpse of his views obtained from a few lines, and those anonymous. Professor M. appears to be connected with the University at Berlin, and is already known as the author of some discoveries in anatomy, and if he has written any thing on the above subject, its publication will be looked for with interest. The author of the foregoing memoir was surprized and gratified with meeting, for the first time, in the above mentioned notice, the slightest allusion to the connexion between the muscles of the eye and the perception of beauty. That the memoir now presented to the Medical Society of the State of New-York is not, in any degree, of foreign origin, there may be additional evidence in the fact, that it had been read before several highly respectable literary gentlemen, and among them, some of the professors and the committee of examination of Union College, who honored the lecture with their attendance in March, 1836. It is not, however, a novel doctrine, that there are sensations attending muscular action, sensations so peculiar and so independent of the five external senses, as to entitle the faculty of internal muscular feeling to the appellation of a sixth sense. This doctrine has been maintained by some distinguished British physiologists, and Sir Charles Bell has considered a set of nerves as specially appropriated to this muscular sense, a sense which informs us of the positions and motions of our limbs. The author finds the nearest approximation to his views in the writings of Dr. Brown, who has rejected the notion that the perception of form results directly from the form of the image on the retina. But this philosopher would not have regarded this as equivalent to a rejection of all "visible form," had he been aware of the necessity of circumvision and of the existence of muscular sensations attending it. It is only this oversight that will explain, why the estimation of distance by ocular muscles, should not have suggested that of form, and the muscular pleasure of the limbs that of the eye. Yet if these had occurred to him, the theory of beauty of form would not have necessarily followed, as he appears not to have analyzed the circumstances or determined the principle on which muscular pleasure, even in the limbs, depends.

Union College, June 10, 1837.

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EXPLANATION OF THE PLATE.

The figure at the bottom of the plate represents a section of the eyeball, bisecting the coats and humors and passing through the optic nerve K and the axis of the eye, X y.

The middle figure exhibits the muscles of the eyeball, the straight ones C, D, E, F, being drawn out of the socket, but kept on the sides on which they respectively belong.

The uppermost figure exhibits portions (G, H, I,) of three of the straight muscles near their insertion into the sebratica, a a.

Wherever the same letters are employed in the figures, they represent the same parts.

a a The scleratica, the outer coat, pierced by the optic nerve at 1.

b The cornea occupying the anterior aperture of the sclerotica, 2.

c The iris, with its central aperture the pupil.

d The ciliary ligament, with the ciliary processes near the lens.

e The middle coat, the choroid, between the sclerotica and retina.

X y The optic axis, passing through the centres of the lens and retina, and outside of the optic nerve.

g The vitreous humor, having the crystalline imbedded in its anterior part.

h The aqueous humor between the crystalline lens and cornea.

i i, The retina or internal coat, extending forward to d d.

A The inferior oblique, somewhat displaced by drawing out C.

B The superior oblique, with its white central tendron passing through the pulley.

C The rectus inferior or depressor, which turns the eye downward.

D Its antagonist, the rectus superior or levator oculi, which turns the eye upward.

E The rectus internus or abductor, which turns the eye toward the nose.

F The rectus externus or abductor, which turns the eye toward the ear.

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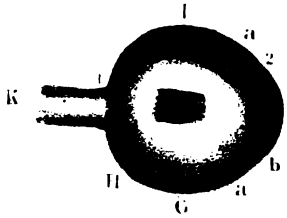

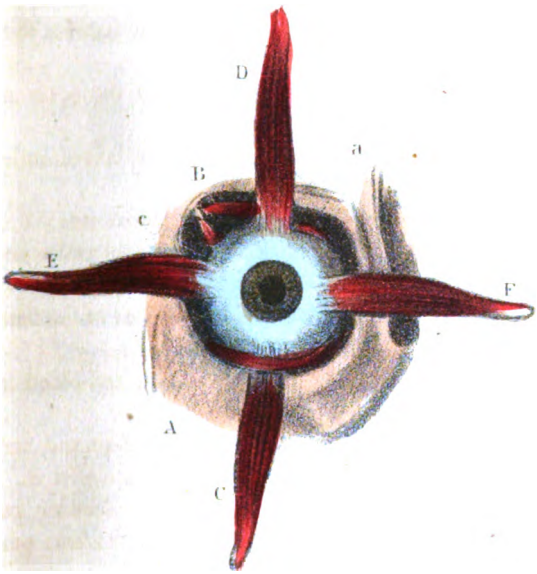

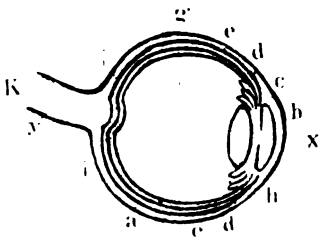

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Art. XII. Statistics *of the* Deaf and Dumb *in the* State of New-York, *the* United States, *and in various Countries of* Europe, *by* T. Romeyn Beck, M. D.

(Communicated by the Author.)

I have supposed that there might be some utility in collecting and arranging the Statistics of the Deaf and Dumb in a compact and accessible form. The subject is of interest, particularly as it regards their education. Besides this, it is also curious to note the difference in the number of cases that occur in various countries. Any inference as to the causes of this infirmity, and its greater or less prevalence, must of course be based on the facts which have been elicited by accurate enumerations.

Two periods have now elapsed (1825 and 1835,) during which enumerations have been taken in the State of New-York. Intermediate between these, there has been one made in 1830, under the direction of the United States Government. The details of each are to be found only in the official publications that have been issued by the respective authorities, and as these are voluminous and not generally accessible, and their results have not been compared with the existing population, probably the information now given may be new to many of the readers of this communication.

I have subjoined such statistical details as I have been enabled to collect, concerning different European countries.

State of New-York.

By the provisions of the law of this State, requiring an enumeration of its inhabitants to be taken every ten years, commencing with 1825, every marshal is directed to report the number of male and female Deaf and Dumb within his town or ward, under ten years of age—between ten and twenty-five years of age, and as to circumstances, whether they are supported by charity or are of sufficient ability to

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support themselves. Finally, he is to report the total number.

The following is a tabular view of the two enumerations.

Counties.	1825. Males. Under 01.	1825. Males. Between 10 & 25.	1825. Females. Under 10.	1825. Females. Between 10 & 25.	1825. Total.	1835. Males. Under 10.	1835. Males. Between 10 & 25.	1835. Females. Under 10.	1835. Females. Between 10 & 25.	1835. Over 25. of either sex.	1835. Total.
Albany,	3	14	1	5	24	1	4	3	9	10	*29
Allegany,	..	3	..	2	8	2	2	3	4	10	*22
Broome,	..	2	..	2	5	1	4	1	2	3	11
Cattaraugus,	3	2	..	2	7	1	7	..	2	9	19
Cayuga,	4	6	5	8	25	3	2	4	3	8	20
Chatauque,	..	2	1	4	8	1	2	1	7	4	15
Chenango,	3	1	1	....	6	3	2	..	5	6	16
Clinton,	2	4	..	6	12	....	4	1	4	8	17
Columbia,	3	6	1	1	12	1	2	1	4	9	17
Cortland,	..	2	..	....	4	1	3	1	3	4	12
Delaware,	1	3	1	2	11	....	4	1	7	7	19
Dutchess,	..	1	2	4	8	5	....	2	4	5	16
Erie,	1	1	2	2	9	....	2	1	3	5	11
Essex,	..	....	..	2	4	1	....	3	....	3	7
Franklin,	3	1	..	1	5	2	1	1	4	.....	8
Genessee,	3	4	2	7	17	7	4	1	4	6	22
Greene,	3	2	5	4	15	1	....	..	3	6	10
Herkimer,	1	1	1	5	12	1	1	1	4	7	14
Jefferson,	4	6	1	5	18	3	6	3	9	12	33
Kings,	..	....	..	....	....	2	1	2	1	2	8
Lewis,	..	2	..	3	5	1	....	..	1	3	5
Livingston,	1	1	..	4	6	....	2	1	3	3	9
Madison,	..	5	..	3	12	1	5	..	....	9	15
Monroe,	..	2	1	5	8	6	4	4	6	4	24
Montgomery,	..	24	10	20	55	5	7	3	12	20	*47
New-York,	1	31	..	24	56	6	61	4	86	20	177
Niagara,	..	2	..	3	5	1	2	..	....	4	7
Oneida,	4	5	1	9	19	6	5	2	11	9	33
Onondaga,	..	4	1	8	14	2	6	3	5	5	21
Ontario,	1	4	3	4	15	....	3	1	2	2	8
Orange,	2	2	2	4	17	5	5	2	3	11	26
Orleans,	1	5	..	2	8	2	....	1	1	5	9
Oswego,	..	....	..	1	1	6	1	1	4	8	20
Otsego,	2	12	4	7	26	5	6	4	4	11	30
Putnam,	..	....	..	1	2	1	1	..	....	4	6
Queens,	..	5	..	2	9	3	2	2	2	6	15
Rensselaer,	1	3	2	4	13	1	4	1	4	9	*22
Richmond,	..	....	..	....	....	....	....	..	....	.....	....
Rockland,	..	....	..	....	....	....	....	1	....	4	5
Saratoga,	1	7	1	2	14	....	3	2	2	5	12
Schenectady,	1	1	..	1	4	2	3	1	4	7	17
Schoharie,	2	6	3	3	13	1	2	..	4	4	11
Seneca,	..	2	..	1	4	1	1	..	1	2	5
St. Lawrence,	2	5	1	2	10	1	5	3	4	3	*17
Steuben,	..	....	5	5	14	4	3	2	6	5	20
Suffolk,	1	3	..	3	7	2	7	..	1	8	18
Sullivan,	..	....	1	....	1	....	....	..	....	2	2
Tioga,	1	1	..	....	2	1	4	1	....	2	8

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Tompkins, ...	..	7	3	7	17	1	6	3	3	4	16
Ulster, ...	5	4	1	9	19	1	7	2	6	9	25
Warren, ...	1	1	2	....	4	1	1	1	3	1	7
Washington, ...	3	10	1	9	25	1	4	..	7	8	20
Wayne, ...	2	2	1	6	23	2	7	4	7	21	41
Westchester, ...	..	3	..	....	4	2	3	2	....	.....	7
Yates, ...	1	....	1	....	2	1	2	2	3	1	9
	68	220	67	213	644	108	222	83	277	343	1033

Remarks.

Census of 1825—*Erie County.*—In the official account of this census (Recapitulation Table) the numbers between 10 and 25 in Erie county is stated to be two, but by referring to the county return, it will be found to be one. Hence the result of this column requires alteration from 221 to 220.

Ontario County.—In the recapitulation table, the total in this county is put 16. It should be 15.

In consequence of these alterations, the grand total is 644, and not 645, as stated in the printed census and copied in an article published in the New-York Medical and Physical Journal, vol. 5, p. 206.

Census of 1835.—There are several important errors in the official tables.

Albany County.—In the recapitulation table, the total of this county is carried out as 27, but it should be 29, as *four* are enumerated in the second ward of the city of Albany, and but *two* carried out in the total column.

Allegany County has in the same table 21 credited to it. It should be 22, since there is one in the town of Ossian, whose age is not given, but who is enumerated in the non-charity list.

Rensselaer County is put down in the same table total 19. It should be 22, as three in the first ward of Troy are not counted here. The county return is accurate.

St. Lawrence County, in the table, is put total 16, but one enumerated in the town of Brasher in the columns of charity, but not in those of age, should be added.

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The census of the Central Asylum at Canajoharie, appended to that of Montgomery county, is not included in the general recapitulation table. It is as follows:

Males, under 10,	1	Females, under 10,	1
between 10 & 25,	11	between 10 & 25,	16
	12	over 25 years,	1
			18

There is a further misprint in the grand total in the official recapitulation table. It is 933 and should be 1033. If, then, we add to this last, the *seven* above noticed, where ages are not stated, Albany 2, Allegany 1, Rensselaer 3 and St. Lawrence 1; and also the census of the Central Asylum at Canajoharie, the total will be 1070.

After these corrections, and which it may be proper to state I have taken great pains to verify, the results of these tables will stand as follows:

1825.		1835.*
Males, under 10 years,	68	109
between 10 and 25,	220	233
Females, under 10 years,	67	84
between 10 and 25,	213	293
Number above 25,	76	344
Age not stated,	00	7
	644	1070

Year.	No. of Deaf & Dumb.	Population.	Proportion
1825.	644	1,616,458	1 in 2510
1830.†	885	1,918,608	1 in 2167
1835.	1070	2,174,517	1 in 2032

I may add that the State Asylums for the deaf and dumb are respectively at New-York and Canajoharie.

* The census of the Canajoharie Asylum is added under each appropriate head. † United States census. See the next table.

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The following additional results are obtained from the official tables:

	1825.	1835.
Supported by charity,	141	278
Of sufficient ability to support themselves,	387	541
	528	819

UNITED STATES.

The marshals of the respective districts were required by the Department of State to make the following inquiries:

1. What number of white persons were there who were deaf and dumb under fourteen years of age—deaf and dumb of fourteen and under twenty-five, and deaf and dumb of twenty-five and upwards?
2. The same inquiries as to slaves and colored persons.

The results of this census are given in the following table.

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Deaf and Dumb in the United States, according to the Census of 1830.

States and Territories.	Whites.				Slaves and colored persons.				Grand Total.
	Under 14.	Between 14 & 25.	25 and upwards	Total.	Under 14.	Between 14 & 25.	25 and upwards	Total.	
Maine,	64	60	56	180	4	..	1	5	185
New Hampshire,	32	55	48	135	5	1	3	9	144
Massachusetts,	56	62	138	256	2	3	4	9	265
Rhode Island,	6	22	28	56	2	2	..	4	60
*Connecticut,	43	152	99	294	4	2	..	6	300
Vermont,	39	59	55	153	3	..	2	5	158
New-York,	277	310	255	842	17	14	12	43	885
New Jersey,	64	71	72	207	5	2	8	15	222
Pennsylvania,	224	279	255	758	12	12	15	39	797
Delaware,	6	15	14	35	..	5	4	9	44
Maryland,	50	31	54	135	40	30	26	96	231
Virginia,	132	118	169	419	51	41	38	130	549
North Carolina,	70	81	79	230	31	27	25	83	313
South Carolina,	60	52	62	174	9	27	33	69	243
Georgia,	50	51	44	145	26	21	12	59	204
Alabama,	45	25	19	89	9	7	7	23	112
Mississippi,	12	10	7	29	2	8	2	12	41
Louisiana,	15	15	19	49	7	5	9	21	70
Tennessee,	59	59	54	172	13	9	6	28	200
Kentucky,	100	113	90	303	16	25	5	46	349
Ohio,	148	160	118	426	5	..	4	9	435
Indiana,	49	59	33	141	1	2	..	3	144
Illinois,	23	27	16	66	..	..	..	..	66
Missouri,	12	5	10	27	2	1	5	8	35
Michigan,	4	7	4	15	..	..	..	..	15
Arkansas,	6	2	2	10	4	..	..	4	14
Florida,	2	....	3	5	1	2	3	6	11
District of Columbia,	4	5	3	12	2	..	..	2	14
	1652	1905	1806	5363	273	246	224	743	6106

The population of the United States, as ascertained by the census amounts to 12,860,702

Add census of the navy of U. S., ... 5,318

Total population, ... 12,866,020

Proportion, ... 1 in 2,107

*126 in West Hartford.

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Proportion of Deaf and Dumb in the several States.

States.	Population.	Deaf and Dumb.	Proportion.
Maine,	399,455	185	1 in 2159
New Hampshire,	269,328	144	1 in 1870
Massachusetts,	610,408	265	1 in 2303
Rhode Island,	97,199	60	1 in 1619
Connecticut,	297,675	300	1 in 992
Vermont,	280,652	158	1 in 1776
New-York,	1,918,608	885	1 in 2167
New Jersey,	320,823	222	1 in 1445
Pennsylvania,	1,348,233	797	1 in 1691
Delaware,	76,748	44	1 in 1744
Maryland,	447,040	231	1 in 1935
Virginia,	1,211,405	549	1 in 2206
North Carolina,	737,987	313	1 in 2357
South Carolina,	581,185	243	1 in 2391
Georgia,	516,823	204	1 in 2533
Alabama,	309,527	112	1 in 2763
Mississippi,	136,621	41	1 in 3332
Louisiana,	215,739	70	1 in 3081
Tennessee,	681,904	200	1 in 3409
Kentucky,	687,917	349	1 in 1971
Ohio,	937,903	435	1 in 2156
Indiana,	343,031	144	1 in 2382
Illinois,	157,445	66	1 in 2385
Missouri,	140,455	35	1 in 4013
Michigan,	31,639	15	1 in 2109
Arkansas,	30,388	14	1 in 2170
Florida,	34,730	11	1 in 3157
District of Columbia,	39,834	14	1 in 2845
		6106	

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It is impossible to examine the above tables, without being struck with two circumstances.

1. The first is the remarkable diversity in the proportion of deaf and dumb occurring in various States. Thus, even if we exclude Connecticut, on account of her extensive asylum, and which undoubtedly increases her ratio, it still seems difficult to explain why the Northern States should have a larger proportion than the Southern, or again, why the proportion of Rhode-Island, which joins Massachusetts, should be so much greater than that of the latter State. If we examine the counties in a particular State we find, for example, that the county of Wayne, in the State of New-York, with a population of 37,788 has 41 deaf and dumb, while Ontario, an adjoining county in thesame State, with a population of 40,870, has only 8.

2. The second is, the apparently rapid increase of these unfortunate beings. True, the facts on this point are not numerous, but all that we have, tend to show this. Besides the State of New-York, in which the increase during a period of ten years is strikingly shown by the facts stated above, there are several other data which I have incidentally noted and which corroborate the opinion advanced. Thus, Governor Van Ness, in his speech to the Legislature of Vermont, delivered October 10, 1823, mentioned that in 1817, a law was passed directing the Secretary of State to ascertain the number of deaf and dumb within the State, their ages and situation in life. By a report made the next year, it appeared that there were then seventy persons of that description, and that thirty-five of them were of a proper age to be admitted into an asylum for education. The number in 1830 was 158.

Again, in Pennsylvania, according to official returns made to the Governor in 1821, there were 485 deaf and dumb, while in 1828, but 468 were enumerated.* In 1830, according to the United States census, the number was 797.

* Hazard's Register of Pennsylvania, vol. 4. p. 380.

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In the "Fourth Circular of the Royal Institute of the deaf and dumb at Paris," published in 1836, a table is given, founded on one originally prepared by Mr. Burnet, a mute, to show the relative proportion of the deaf and dumb in the white and colored population of the United States. I add some of the abstracts.

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Northern States, including	White population.	White deaf and dumb.	Proportion.	Colored population.	Col'rd deaf & dumb.	Proportion.	Total deaf & dumb.	Proportion to the whole population.
Maine, New Hampshire, Rhode Island, Connecticut, Vermont, New-York, New Jersey, Pennsylvania, Delaware,	5,474,768	2916	1 in 1877	144,361	144	1 in 1002	3060	1 in 1836
Southern States.								
Maryland, District of Columbia, Virginia, North Carolina, South Carolina, Georgia.	2,040,483	1115	1 in 1830	1493,791	439	1 in 3402	1554	1 in 2274
South-western States.								
Alabama, Mississippi, Louisiana, Tennessee, Kentucky, Missouri, Arkansas, Florida.	1,562,674	684	1 in 2284	674,607	148	in 4,558	832	1 in 2689
North-western States.								
Ohio, Indiana, Illinois, Michigan,	1,454,135	648	1 in 2244	15,883	12	1 in 1323	660	1 in 2227
Total,	10,532,060	5363	1 in 1964	2328,642	743	1 in 3134	6106	1 in 2106

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There is one comment made by the editor of the work from which I have taken this abstract, to which I cannot too pointedly call the attention of my readers. It is the fact of the far greater prevalence of this infirmity among the free blacks than among the slave population. Thus in the ten northern States, as enumerated, the proportion is 1 in 1002, although there is scarcely a slave in these States. So also in the north-western district, the proportion is 1 in 1323. While in the southern States, where all are slaves, the proportion is 1 in 3402, and in the south-western 1 in 4558. If physical causes have the slightest effect in producing this malady, does not the above statement prove that the condition of our free blacks is infinitely worse than that of their brethren at the south?

I now proceed to state such European results as I have been enabled to procure.

Kingdom of Prussia.

The nnmber of deaf and dumb, according to a census taken in 1825, was 6786; in 1827, 6764; in 1828, 8223, in a population of 12,726,823, making a proportion of one mute to every 1548 inhabitants. A diversity similar to that which I have already stated, exists as to the numbers in the respective provinces of this kingdom. Thus, East Prussia has one deaf and dumb to every 1078 inhabitants, while Cleves-Berg has only one to every 2844. The writer who notices these facts, observes that the only circumstances which seem to have any influence in producing this diversity, are that those provinces in which knowledge is most extensively diffused and which enjoy most completely the conveniences of life, have a smaller number of deaf and dumb.*

The following table exhibits the age of the above individuals.

* Troisieme Circulaire de L'Institut Royal des Sourd—Muets de Paris a toutes les Institutions de Sourd—Muets de L'Europe, de l'Amerique et De l'Asie, 8 vo. Paris, 1832. I am indebted for this and the other circulars, published respectively in 1827, 1829, 1832 and 1836, to the kindness of John A. Dix, Esq. Secretary of State.

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From 1 to 5	years,	275
5 to 10	"	1118
10 to 15	"	1400
15 to 20	"	1220
20 to 25	"	1063
25 to 30	"	891
30 to 35	"	563
35 to 40	"	466
40 to 45	"	317
45 to 50	"	331
50 to 55	"	208
55 to 60	"	166
60 to 65	"	128
65 to 70	"	38
70 to 75	"	26
75 to 80	"	7
80 to 85	"	5
85 to 90	"	1
		8223

Sex.—Of 2819 whose sexes were ascertained by the census of 1825, 1591 were males and 1228 females, being in the portion of 4 to 3.*

SWITZERLAND.

From an examination made in several cantons, the following returns were obtained, probably in 1826, but I have not been able to ascertain the precise year.

	Population.	Deaf and Dumb.	Proportion.
Zurich,	220,000	225	1 in 1000
Vaud,	155,000	152	1 in 1000
Basle,	50,00	100	1 in 500
Argovia,	120,000	300	1 in 400
Berne,	350,000	1000	1 in 350
	895,000	1777	1 in 503

* Troisieme Circulaire, p. 127.

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The details of the Pays De Vaud are as follows. Out of 152, there are 66, 30 males and 36 females, capable of receiving instruction, while 70, 40 males and 30 females, are either from age or disease, or mental imbecility approaching cretenism, incapable of it. Lastly, 16, 7 males and 9 females, form an intermediate class between the two, and the prospect of instructing them is faint. The majority belong to poor families, and of 82 capable of instruction, only 26 can contribute towards its expense.*

Denmark.

In the Danish Dominions, from returns made by the clergy in 1807, the number of deaf and dumb was 515 in a population of 820,621, being one in every 1593.† According to the table in the third circular of the Paris Deaf and Dumb Institution, the number was 1260 with a population of 1,800,000—being in the proportion of 1 to 1428 and not 1714, as stated in the table and copied from thence into the last (seventh) edition of the Encyclopedia Brittanica.‡ Hence there would be an increase instead of a diminution of the number, but I apprehend that this statement is merely conjectural, as I can find no authority for the number stated of the deaf and dumb. In 1834, however, a census was taken by order of the Government, of which the following are abstracts.

	Males.	Females.	Total.
Zealand, including the city of Copenhagen,	144	114	258
Diocese of Laaland and Falster,	13	12	25
Diocese of Funen,	51	46	97
Jutland, including four Dioceses,	129	121	250
	337	293	630

* Troisieme Circulaire, p. 121. Bulletin des Sciences Medicales, vol. 11, p. 53. † Dr. Reeve in Edinburgh Medical and Surgical Journal, vol. 7, p. 60. ‡ Vol. 7, *Art.* Deaf and Dumb.

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Age.	Males.	Females.	Total.
From 1 to 8 years,	24	27	51
8 to 14 "	64	39	103
14 to 20 "	62	45	107
20 to 30 "	77	68	145
30 to 40 "	40	49	89
40 to 50 "	29	24	53
50 to 60 "	26	25	51
60 to 70 "	14	10	24
Above 70 "	1	6	7
	337	293	630

The directors of the Royal Institution of Copenhagen suggest, that the number in the first line, between 1 and 8 years, is hardly complete, since very frequently the fact is not sufficiently ascertained during that period, of the infirmity of the child, or at all events, that there will be an indisposition to register it. They conceive that the number should be doubled, and the total will hence be 680.

The proportion in various parts of the population is thus stated.

	Number.	Population.	Proportion.
The Capital, Copenhagen,	62+ 5= 67	119,292	1 in 1780
The cities,	65+ 5= 70	132,220	1 in 1889
The country,	503+40=543	972,295	1 in 1791
	630+50=680	1,223,807	1 in 1800

If to these we add Iceland and the Faroe Islands, population 57,000 and 6,000—and the Dutchies of Schleswig, Holstein and Lauenberg, population 800,000, and allow to them deaf and Dumb in the proportion as above, of 1 to every 1800, the total for the whole Danish Dominions will be as follows.

Danish Provinces, properly so called,	680
Iceland and the Faroe Islands,	35
Dutchies of Schleswig, Holstein and Lauenberg,	450
	1165*

* Quatrieme Circulaire, p. 209 to 218.

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Kingdom of the Netherlands.

In 1829, previous to the separation of Holland and Belgium there were in that kingdom 2166 mutes in a population of 6,166,854, being a proportion of 1 in 2847.

Belgium.

In 1835, a census of the deaf and dumb was taken in this kingdom, which I present in a tabular form, adding the sexes of those aged from 6 to 18 years.

PROVINCES.	Population.	Deaf & dumb.	Proportion.	Males from 6 to 18.	Females fm. 6 to 18.	Total.
Antwerp, -	358,107	102	1 to 3511	17	17	34
Brabant, -	565,353	240	1 to 2355	43	28	71
West Flanders,	609,045	281	1 to 2167	58	36	94
East Flanders,	743,232	312	1 to 2382	61	57	118
Hainault, - -	617,683	331	1 to 1866	40	47	87
Liege, - -	377,909	194	1 to 1948	27	16	43
Limburg, - -	341,880	173	1 to 1976	26	18	44
Luxemburg, -	311,113	127	1 to 2450	20	19	39
Namur, - -	217,935	140	1 to 1557	19	15	34
Total,	4,142,257	1900	1 to 2180	311	253	564

The proportion of the sexes in the whole number is eight females to ten males.*

Kingdom of Saxony.

	Population.	Deaf and Dumb.	Proportion.
July 3, 1832,	1,558,153	1168	1 in 1334

It is here also suggested that many between the ages of one and five have not been counted, and it is proposed to add one-eighth for this omission, which will be 146, and thus raise the number to 1314, and make the proportion 1 to every 1186 inhabitants.

Of the number obtained by the census, 643 are males and 525 females. The male population of Saxony is 756,554 and the female 801,599. The proportion then, of male mutes to the whole male population, is one in every 1177, and of the female, 1 in 1527. The true mode, however, of comparing the sexes in this respect, is to apply the male proportion to

* Quatrieme Circulaire, p. 220.

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the female population. This will give 681 as the number of male mutes to a male population equal to the females, and the ratio therefore will be 681 to 525, or nearly 4 males to 3 females.*

According to Mr. Preston, another census of this kingdom was declared December 1, 1834, with the following results.

Population.	Deaf and Dumb.	Proportion.
1,595,668	1010	1 in 1579†

Dutchy of Brunswick.

The following medico-statistical table of the deaf and dumb in this Dutchy, in 1836, by Dr. Mansfeld, I take from a recent number of the British and Foreign Medical Review.

1. The whole population of the Dutchy is 253,232; the total number of deaf and dumb 125, consequently the proportion is 1 in 2026. 2. Of the 125, 60 are males and 65 females. 3. Nearly the fourth part of the whole number had one or two brothers or sisters similarly affected. 4. For the most part, these persons belong to the middle and lower classes, their parents being generally poor. 5. The health of these persons is in general good, those residing in the vicinity of the Harz are said to be scrofulous, and five of the whole number are idiotic. In two cases only could the deaf and dumbness be traced to distinct causes, viz. one as the consequence of fright, the other of miliary fever. 6. Almost all the deaf and dumb in the Dutchy have the benefit of education, a circumstance very creditable to the country, and which the author, with a just pride, contrasts with the great neglect of the same class of persons in Austria, in which vast empire it appears that out of 20,639 individuals laboring under this infirmity, only 400 are placed in houses of instruction, 10 in number, all the rest being left without assistance. When it is considered that of this number the fifth part at least are susceptible of instruction, there is evidently here a great neglect of the duties of humanity. 7. With the exception of those who are yet too young to work or who are mentally incapable

* Quatrieme Circulaire, p. 206. † Lond. Athenæum, No. 443, April 23, 1836.

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of gaining their livelihood, or are supported by relatives, (57 in all) or who are in the course of instruction (number not mentioned,) all the others are gaining their own livelihood, as artizans and laborers. Doctor Mansfeld calls the particular attention of teachers to the fact that in many cases the inability to acquire the sound of particular letters or words depends on physical defects of the organs of speech, and not mental incapacity. In proof of this, he instances nine cases among the children at this time in the Brunswick Institution, who labor under some defect of this kind. The defects mentioned are the following: Imperfect uvula; thick tongue, without fraenum; large tongue, long and irregular uvula; tongue deficient in muscularity; tubular palate, imperfect uvula, enlarged tonsils; flat and irregular palate, general defective size of mouth, large tonsils; imperfectly developed larynx.*

ENGLAND.

"It has been ascertained that the number of deaf and dumb in England and Wales is not less than 8000. One in every 1750, the population being 14 millions."†

IRELAND.

"M. Mucke, Director of the Institution at Prague informs us that a census of the deaf and dumb has been taken in Ireland, and that 3500 were found in a population of 6 millions, being 1 in every 1714."‡

ITALY.

According to a government census in the Dutchy of Modena, the Commune of Modena contained 25 deaf and dumb in 50,000; Province of Reggio 72 in 142,000.

No further details have been obtained, but it is stated on the authority of M. Fabriani, that the proportion ascertained is 1 in 2000. Now as the population of the whole Dutchy is 376,000, the number of deaf and dumb is probably 188.

The city of Rome, with a population of 150,000, contains 70 deaf and dumb, 30 females and 40 males.§

* British and Foreign Medical Review, vol, 3, p. 255, from the Hannoversche Annalen, October, 1836. † London Journal of Education, vol. 7, p. 193. ‡ Troisieme Circulaire, p. 125. § Quatrieme Circulaire, p. 205.

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The above are all the authentic reports (with the exception of those given in the succeeding table,) that I have been enabled to obtain. It does not appear that a census has yet been taken in France or in the Austrian empire. To supply these deficiencies, and at the same time to form some estimate as to the probable number of the deaf and dumb, the editors of the "Troisieme Circulaire" constructed a table of such as were then (1832,) ascertained and took the average and applied it to the population of various countries, and finally to the whole world. This table is as follows.

Countries.	Population.	Deaf & dumb.	Proportion.
Switzerland,	895,000	1,777	1 in 503
Grand Dutchy of Baden,	1,108,060	1,983	1 in 559
Wurtemberg,	1,550,215	1,250	1 in 1240
Bavaria,	4,037,000	2,908	1 in 1388
Prussia,	12,726,823	8,223	1 in 1548
Electorate of Hesse,	550,000	400	1 in 1375
Dutchy of Nassau,	300,000	210	1 in 1428
Dutchy of Brunswick,	206,000	176	1 in 1170
Netherlands,	6,166,854	2,166	1 in 2847
Denmark,	1,800,000	1,260	1 in 1428*
Ireland,	6,000,000	3,500	1 in 1714
United States,	12,000,000	6,000	1 in 2000
	47,339,952	29,853	1 in 1585

The average number (1585) is now taken and applied to those countries in which no census of the deaf and dumb had been taken, and a second table being thus formed, and the whole again compared, it appeared that Europe, with a population of 214 millions probably contained 139,212 deaf and dumb.† It is not necessary to copy this table after the foregoing explanation. It may be found in full in the Encyclopedia Brittanica, as already quoted.

I will now subjoin a table of those countries which I have mentioned in the former part of this paper, for the purpose of establishing a comparison between it and the one just given. The object of course, is to ascertain if possible, whether the

*Corrected as stated in a previous page. †Troisieme Circulaire, p. 126. 182.

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proportion of deaf and dumb has on the whole during the last few years, increased, diminished, or remained stationary.

Countries.	Population.	Deaf & dumb.	Proportion.
New-York, 1835,	2,174,517	1070	1 in 2032
Denmark, 1834,	1,223,807	680	1 in 1800
Belgium, 1835,	4,142,257	1900	1 in 2180
Saxony, 1834,	1,595,668	1010	1 in 1579
Brunswick, 1836,	253,232	125	1 in 2026
	9,389,481	4785	1 in 1962

At first sight, the result may seem to shew a diminution in the number, in proportion to the population; but it must be recollected that the countries examined, contain in all less than ten millions—that they are generally healthy countries, and that some states, as Switzerland, where the number of deaf and dumb is unusually great, do not enter into the elements of calculation. If these points be considered, we shall I think, be willing to allow that the former average (1 in 1500) is probably the nearest to exactness.

As to the question of increase, in particular countries, it would certainly seem from most of the data now given, to be decided in the affirmative.

Sex. We have but few facts on this point. The following is given in the French treatise already referred to.

	Deaf & Dumb.	Males.	Females.	Proportion.
Canton of Zurich,	206	111	95	7 to 6
Prussia, - -	2819	1591	1228	4 to 3
Denmark, - - -	607	325	282	8 to 7
State of N. Y. (1825)	569	289	280	32 to 31
	4201	2316	1885	6 to 5
We may add to this,				
State of New-York, 1835, -	719	342	377	19 to 21
Dutchy of Brunswick, 1836,	125	60	65	12 to 13
Denmark, 1834, - - - -	630	337	293	7 to 6
Belgium, 1835, - - - -	564	311	253	6 to 5*
Saxony, 1832, - - - - -	1168	643	525	6 to 5*
	3206	1693	1513	6 to 5

*Nearly.

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Art. XIII. Statistics *of the* Blind *in the* United States, *as ascertained by the Census of* 1830, *by* T. Romeyn Beck, M. D.

(Communicated by the Author.)

States, &c.	Whites.	Slaves and colored persons.	Total.
Maine,	159	1	160
New-Hampshire,	105	...	105
Massachusetts,	218	5	223
Rhode Island,	56	8	64
Connecticut,	188	7	195
Vermont,	51	..	51
New-York,	642	82	724
New Jersey,	205	22	227
Pennsylvania,	475	28	503
Delaware,	18	11	29
Maryland,	147	124	271
Virginia,	355	438	793
North Carolina,	223	161	384
South Carolina,	102	136	238
Georgia,	150	123	273
Alabama,	68	48	116
Mississippi,	25	31	56
Louisiana,	36	77	113
Tennessee,	176	37	213
Kentucky,	169	83	252
Ohio,	232	6	238
Indiana,	85	2	87
Illinois,	35	4	39
Missouri,	27	10	37
Michigan,	5	...	5
Arkansas,	8	2	10
Florida,	3	16	19
District of Columbia,	11	8	19
	3974	1470	5444

Proportion, 1 in 2363.

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A still later investigation on this subject has been made under the authority of the Legislature of Ohio, and it appears that in 1836, there were no less than 287 blind, in 59 counties of that state,; 160 males and 127 females. Of this number 60 were under sixteen years of age, and 29 from 16 to 25*.

The following exhibits the number of blind in the kingdom of Saxony, at two different periods.†

	Population.	Blind.	Proportion.
July 3, 1332,	1,558.123	423	1 in 3675
December 1, 1834,	1,595.668	324	1 in 4924

*Boston Medical and Surgical Journal, vol. 16, p. 35, (Feb. 15, 1837.) In the United States census for 1830, 73 counties are enumerated in Ohio.

†London Athenæum, April 23, 1836.

N. B. After every effort to render the figures in the preceding pages accurate, I find one or two errors have crept in.

Page 328. Montgomery county, 1825, insert 1 in the column of males under 10.

Saratoga county, 1825, the total is 13 and not 14.

Schoharie county, 1825, the total is 14 and not 13.

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Art. XIV. Observations *on some of the Injurious Effects of the* Secale Cornutum, *by* Thomas Chavasse, Esq., *Surgeon, Birmingham.*

(From the Fourth Volume of the Transactions of the Provincial Medical and Surgical Association.)

The object of this paper is not to attempt to reconcile the discordant opinions that are known to prevail respecting the powers of the secale cornutum, but to show, that though an important auxiliary in the practice of midwifery, it is calculated, when given without care and discrimination, not only to defeat the purpose for which it was administered, but to destroy the vitality of the child in utero; and that at other times, even when given under the guidance of judgment and discretion, it will occasion hour-glass contraction and retention of the placenta.

Before, however, I proceed to the narrative of two of the several cases which have occurred in my own practice, I wish it to be understood that the following observations, which apply more particularly to first labours, are not based on those cases only, but conjointly on my own experience and that of other practitioners, who, like myself, have employed the ergot very extensively, and upon whose judgment and veracity I place the fullest reliance.

Mrs. R., æt. 29, a delicate woman of nervous irritable temperament, was taken in labor at the full period of utero-gestation. Nothing occurred worthy of observation, till she had been in labour between eight and nine hours, when the pains became very frequent, but inefficient. The os uteri was dilated to the extent of a five shilling piece. With a view to control this irritable state of the uterus, a warm emollient injection was administered, (though the bowels had been previously unloaded) and a full dose of opium was given. These means had not the effect intended, neither had the opiate procured sleep, and I found her in an hour afterwards much exhausted, and the labour but little advanced. Mild stimulants were had recourse to, but my pa-

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tient became very faint after each pain. At this period the child was lively, the os uteri still about the size of a crown piece, its edges thinner, the lochial discharge free, and the external parts disposed to yield. At this time I had but little experience of the powers of the secale cornutum, and conceiving that its operation, by imparting additional energy, would overcome irregular and inefficient action of the uterus, I ventured (as the head of the child was well situated) to give her two scruples of the recently powdered substance in a wine glass full of water. Nearly 20 minutes elapsed (my patient in the interval being almost free from pain) before the effects of the ergot became apparent. She now began to complain of great pain and uneasiness in the hypogastric region, different (to use her own expression) from any thing of the kind she had experienced before. The pains increased in frequency and force, till at length they became continuous and violent, lasting a full half hour, when they ceased altogether; and my patient grew restless and anxious. From this period the motions of the child were no longer perceptible; and on examination I found the labour but little advanced. Mrs. R. being now free from pain and much exhausted, fell asleep, and full two hours elapsed before there was any return of uterine action. An increased flow of lochial discharge was soon followed by some sharp bearing down-pains, and soon afterwards by the expulsion of a fine still-born child. Firm and steady pressure was made over the region of the uterus, but no attempt was made on the part of the womb to dislodge the placenta. As there was no hemorrhage I waited nearly an hour, but still the uterus exhibited no disposition to throw off its contents, and my patient's, as well as my own anxiety being well awake, I introduced my hand, and immediately detected well marked hour glass contraction; the uterus being divided into two chambers, and the placenta lodged in the upper. Finding the stricture very firm, I withdrew my hand, and giving her a full dose of laudanum, waited ten minutes, and,

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again introduced it. By steady pressure, with the fingers reduced to a conical shape, I soon overcame the annular stricture, and brought the placenta away in my hand. The uterus immediately contracted firmly, and nothing occurred to interrupt the convalescence of my patient.

The result of this case cost me much pain, for I could not dismiss from my mind the belief that the exhibition of the ergot had destroyed the child; and other circumstances connected with my patient, rendered this impression a cause of more than ordinary anxiety. Mrs. R. had been married more than five years, was very desirous to have a family, had miscarried for several times, and it was only by a strict adherence to the rules laid down for her, on her own part, and ome watchfulness on mine, that she attained the full period of uterogestation; added to which, the disappointment and uneasiness she felt at the loss of her child were greatly heightened, by the full persuasion she herself entertained, that she should never again become pregnant. On this point however she was happily deceived, for in six months she was again pregnant, and so different was her labour in this instance, that she required neither my attendance nor the ergot, the child being born before my arrival.

At 5 o'clock in the morning of the 5th of June, 1830, Mrs. H, a delicate woman, 36 years of age, was taken at the full period, with slight uterine pains, and other indications of approaching labour. When I saw her, at twelve o'clock, she was progressing slowly but satisfactorily, and the os uteri was opened to about the circumference of a shilling. I was called to her at six p. m., the pains being sharper, and the os uteri the size of a half-crown. The presentation was natural. The pains were slow, but regular, till twelve o'clock, when, increasing in frequency till two o'clock, the liquor amnii escaped, and there was a suspension of pain for three-quarters of an hour; the child being lively and troublesome. The circumference of the os uteri was now equal to that of a crown piece, and its edges, though firm, yielded

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to pressure. I administered two scruples of powdered ergot. In twenty minutes it began to manifest its power, by producing pain in the lower part of the abdomen and back, which soon became severe, and continued without intermission for full half an hour, when she became quite easy. During this time there was but little bearing-down sensation, and I found, on examination, that neither the os uteri nor perineum had undergone any material change. She continued free from pain for nearly an hour, enjoying, in the interval, a little refreshing sleep. She was awakened by a return of the pains, which soon becoming severe and sensibly effective, the perineum was speedily on the stretch, and in less than half an hour my patient was delivered of a fine still-born child. After waiting full half an hour, the uterus in the interim shewing no disposition to throw off its contents, (although the belly and loins had been well rubbed, and the womb itself forcibly grasped from time to time with the hand, but without the effect of producing satisfactory contraction of the organ) my patient began to flood considerably. Unable to trace the insertion of the funis into the placental mass, I suspected there was hour-glass contraction, and on introducing my hand my suspicions were confirmed. I immediately withdrew it, gave her fifty drops of tincture of opium, and after waiting half an hour again passed my hand into the cavity of the uterus. The constriction was soon overcome; and as there was no adhesion, the afterbirth was easily brought away. My patient ultimately did well, but no conception has since taken place.

I think it unnecessary to detain the reader with the details of additional cases, as the facts in all of them correspond with those I have already related. The destruction of the child in utero, by means of the ergot of rye, whether considered in a *moral* or *medico-juridical* point of view, is a matter of no ordinary moment. My attention was first called to it by the the cases I have related; subsequently by others; and has been again aroused by the large number of cases of

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still-born children that are weekly reported in the bills of mortality, as they occur in the metropolis. In the bills of mortality as announced in the *Medical Gazette* of December 10th, 1833, no less than seventy-five children are reported to have been still-born in the short space of one week, from the 3rd to the 10th of that month.

When it is considered that an agent so powerful as the secale cornutum, has found its way into the hands of female midwives who have neither experience nor discretion to guide them, and whose success is usually measured, not so much by the fortunate issue of their cases (I mean as far as the infant is concerned) as by the expedition with which the labour is brought to a close, I think there is great reason to believe that many of the deaths, so reported, have been occasioned by the abuse of this potent, but valuable medicine.

In confirmation of this opinion, I may observe, that it was stated in one of the American Medical Journals a few years ago, that the number of still-born children had increased in such an enormous ratio since the introduction of ergot into the practice of midwifery, as to leave no doubt on the mind of the writer, that the employment of this vegetable has been in a great measure instrumental in producing such a result.

I shall now proceed to consider the influence of the secale cornutum in producing hour-glass contraction of the uterus.

These cases occur more frequently in first than in subsequent labours, and this fact is confirmed by others as well as myself.

Retention of the placenta, arising from the employment of the secale cornutum, is an evil to which the attention of the profession, has, I believe, never before been directed; and I am convinced that since the ergot has been called into use, cases of this kind have been of far more common occurrence than formerly, although in my own practice, as well as in that of those friends whom I have consulted, steady and firm pressure have been uniformly applied to the uterine

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region, either by bandage or by the hand of an assistant, in the proper stage of the labour.

This event has taken place in my own practice, in twenty-three instances, during a period of *seven years*. In *eighteen* of the cases the children were still-born and *in all* of these, ergot had been administered. In the practice of my relative and partner, Mr. P. H. Chavasse, nine cases of still-born children have followed its use; and my experienced and valued friend, Mr. Jukes, a surgeon of the general Hospital, in Birmingham, is so convinced of the fact, that he has long since abandoned its employment altogether.

Since the above was written, Mr. Jukes has kindly obliged me with the following important letter containing the result of his experience. Mr. Elkington, of this town, whose very extensive midwifery practice has afforded him most ample opportunities of ascertaining the powers of the ergot, has likewise favoured me with a letter; and to Mr. P. H. Chavasse, I am indebted for the third; all of which, as tending to confirm the opinions I entertain on the subject, I cannot resist the pleasure of transcribing in this place. Mr. Jukes writes,—

My Dear Sir,—In reply to your enquiries, I beg to state, that in my first trials of secale cornutum, I had no less than six cases of retention of the placenta, almost in succession; three of which were well marked cases of hour-glass contraction. In each of these cases I had not employed it till the os uteri was fairly dilated. They were all cases of arrest, and, I have no doubt, would have been brought to a safe termination by the powers of nature alone, had I waited a sufficient length of time. In four of these cases no pregnancy has again taken place; and out of six, five of the infants were born dead. It may be said, these were extreme cases, and, fortuitously happening so nearly together, present a singularity which would not otherwise happen. Certain it is, I was at once induced to pause in its use; but though I have done so, I have, nevertheless, been actively alive to the effects of its employment by others, and I can safely say, I am more and more confirmed in my opinion, that it should not be permitted to be used so

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indiscriminately as it is, and has been, by practitioners in general, and more especially by women practising midwifery, who ought never to be suffered to use it, excepting under medical direction.

After ergot is administered, I have observed that no regular intermitting pains, as in natural labour, occur, but that there is a general strain and effort to expel, until the child is born; and hence more than ordinary care is required in guarding the perineum, or otherwise it will be torn asunder. Indeed, so different is the patient's situation, that if the practitioner be inexperienced the child will frequently be born before he is aware of it. In several instances which have come to my knowledge, there has been the greatest possible danger of rupture of the uterus taking place; and in one case, where the ergot had been most injudiciously given, before the position of the child had been accurately ascertained, and in which one of the arms was afterwards discovered to present, the difficulty in turning was so great as to be almost insuperable. I am decidedly of opinion that cases of retention of the placenta are become very much more frequent since the ergot has been brought into such general use.

Believe me, dear Chavasse,

Very truly yours,

ALFRED JUKES.

Newhall Street, August 1st, 1835.

Mr. Elkington writes,—

My Dear Sir,—At one time I was in the habit of using ergot, in protracted or lingering labours, extensively, and frequently with decided advantage; but the exhibition of it was so often followed by irregular action of the uterus, sometimes by increasing and inefficient pains, and by retention of the placenta, that I now seldom use it. I find, on referring to my notes, that several of those patients who took it had still-born children. It was rarely, if ever, given until the os uteri was fairly dilated. Since I have used it less frequently, I have had very few cases of retention of the placenta.

Your's, truly,

FRANCIS ELKINGTON.

St. Paul's Square, August 5th, 1835.

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Mr. P. H. Chavasse adds,—

Dear Sir,—My experience of the secale cornutum leads me to concur in opinion with yourself respecting its effects, and more especially in first labours, in which I believe it to be a very frequent cause of still-born children, and, subsequently, of hour-glass contraction of the uterus. I have employed it now for nearly five years, and have had, during that time, nine cases of still-born children. Four of these were first labours, and they are the only first labours in which I have given it. Two of the patients have not since conceived. There was nothing remarkable in any of them: they were simply lingering labours, and in all, before I administered it, there was every indication of the children being alive. I did not employ it before the os uteri was soft and yielding, and dilated to the size of a crown piece, or even larger. In most of these cases the placenta was longer than usual in being expelled, although the pains seemed more than sufficient to occasion its expulsion, assisted, as they uniformly were, from pressure over the region of the uterus, provided there had not been hour-glass contraction. These cases have made a deep and lasting impression on my mind; and I have long since come to the determination, never to give ergot in first labours, nor, indeed, in subsequent ones without great care and caution.

I remain, most sincerely yours,

P. H. CHAVASSE.

In all the cases that came under my observation, no adhesion occasioned the retention of the placenta, which being detached from the parieties of the uterus, was detained in the upper cavity of that organ, formed by the hour-glass contraction.

It is a remarkable fact, that in seven of these cases no subsequent conception has taken place. How far the ergot may have had any influence in producing this condition, a greater extent of observation than my experience has hitherto afforded me can alone elucidate.

That the operation of the ergot is specifically on the uterus, is a fact generally acknowledged; and my own experience, deduced from very extensive trials, leads me to be-

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lieve that its peculiar effects, if not wholly directed, are principally exerted on the circular fibres of this organ; for in those cases in which hour-glass contraction took place, no resistance was offered to the introduction of the hand into the cavity till it reached the stricture, when very firm and unyielding pressure was required to subdue it. It would, moreover, seem not unreasonable to infer, that an irritable organ like the uterus, when thrown into a state of inordinate action, should contract to that degree which constitutes spasm, and that those fibres to which its powers seem more particularly directed, should evince this effect in a peculiar degree.

Dr. Dewees appears to think otherwise, for he says,—"It is not the alternate contraction that is increased by the substance, the tonic, which is of more value, is powerfully augmented, since it can, in consequence of this power, be most advantageously employed in many cases where this effect is all important." He then observes that, "unlike other stimulants, it is never followed by inertia of the uterus: and that although hemorrhage sometimes succeeds other stimuli, though successfully exerted as regards the mere delivery, he has never witnessed such a consequence follow the use of ergot." But no mention is made of the subject more immediately under consideration.

One fact, which I have uniformly observed, is remarked by the above named eminent obstetrician, namely, "that ergot never acts with so much energy as when it acts quickly; and that when it does not manifest its influence in twenty minutes, or half an hour, it utterly fails."

This difference in its operation is, I imagine, to be attributed rather to the individual than the medicine; some systems being more susceptible of its action than others.

Under the direction of a discriminating and enlightened practitioner, however, the secale cornutum may, I am persuaded, be prescribed with every prospect of success; but in the hands of the unobservant and ignorant, much injury, as well as disappointment, will accrue from its use. I came

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to this conclusion long before I saw Dr. Dewees' paper; who, in the following directions for its employment, embodies the rules by which my own practice has been principally regulated:—

1. It should never be given before the membranes are ruptured, the os uteri dilated, and the external parts disposed to yield.

2. But should the pains flag from any cause, it may be given, provided the labour be natural, according to the acceptation of the term natural labour—that is, when the head is well situated, the breech, the feet, or the knees present. For independently of any accident which may complicate the labour, it is desirable to hasten it sometimes, for the safety of the child, when the natural powers are incompetent to this end.

3. And if the labour be accompanied by any such accident as flooding, convulsion, syncope, &c. it may be sometimes employed to great advantage, provided rules 1 and 2 are not violated.

4. It may be used often with much advantage in every kind of premature labour; and at the full time, when the placenta is not thrown off, and the uterus is in a state of atony.

5. When floodings take place after the rupture of the membranes, the os uteri well dilated, the pains feeble, but the child well situated.

6. When the head of the child has been left in the uterus by being separated from its body.

7. When the uterus is painfully distended by coagula.

In a case of puerperal convulsions, occurring in the first labour of a plethoric young woman, ergot (after a copious abstraction of blood) was administered, in accordance with rule No. 2 of Dr. Dewees. No recurrence of the convulsions took place, but a still-born child was expelled in an hour after, under circumstances similar to those related in the other cases, and there was a retention of the placenta; but she has since conceived and done well.

Under the fifth head I must be allowed to differ from Dr.

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Dewees, both as regards its exhibition in premature labours, as well as in those cases in which the placenta is not thrown off for want of contractile power.

My own observation would lead me to believe, that ergot exercises no power over the uterus until the full term of pregnancy is accomplished; or until the muscular fibres of that organ have been excited to action by the pains of labour. In two instances which came to my knowledge, in which it was given with a view to excite premature labour, it entirely failed. In one, that of a single woman, it was taken by the recommendation of a female midwife, in full and repeated doses, but, though it excited violent vomiting, it failed to accomplish the purpose. I have repeatedly tried it as an emmenagogue, and more particularly in those females in whom menstruation has never taken place, as well as in those in whom it has occurred, though only in a very sparing degree, and where the deficiency has appeared to arise from want of sufficient activity in the uterine circulation, but without any apparent advantage. In those cases in which the after-birth has not been thrown off, it has been repeatedly exhibited, but without the least effect in promoting its expulsion.

The following cases illustrate the effect of ergot in uterein hemorrhage during labour, and shew the superior efficacy of that medicine to the employment of the plug:—

Mrs. Adkins, æt. 38, of a full plethoric habit, and the mother of seven children, was seized, at the full period of pregnancy, with slight labour pains, followed by profuse hemorrhage. I was called in great haste, and found her much exhausted by the copious discharge of blood that had taken place before my arrival. The pains had, in a great measure, left her. The os uteri was larger than a half crown-peice, and dilatable, and on one side a portion of protruding placenta could be detected. As the hemorrhage continued, and every succeeding pain was followed by a gush of blood, I at once freely ruptured the membranes, and, as the presentation was natural, gave her two scruples of ergot in a wine-glassful of bran-

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dy and water. My patient at this time was pale and exhausted, and for fifteen minutes there was neither pain nor bleeding. She was seized with severe dilating pains; and I found, on making an examination, that the portion of placenta had been retracted. The os uteri dilated rapidly, and the head descending, she was safely delivered of a dead child, in thirty minutes from the time the secale cornutum was administered, and without any recurrence of hemorrhage. The after-birth was speedily detached by the natural efforts of the uterus, and my patient was soon restored to health. In this case it was clear, from the putrid state of the fœtus, that it had been dead some days before the labour commenced.

The second case occurred in a delicate woman, the mother of six children, and the wife of an inn-keeper of this town. She had been busily engaged all Saturday, and till one o'clock on the Sunday morning, when she went to bed. At two o'clock she was awaked by slight symptoms of labour, and at half-past two, to use her own expression, her "bed-linen was sodden with blood." In her alarm she got out of bed; and a messenger was despatched for me. I found her still up and supporting herself by the bed-post: she was in great distress, and the floor for a considerable distance around her covered with blood. I placed her immediately on the bed, and discovered, on examination, a considerable portion of placenta protruding between the fœtal head and the os uteri, which was dilated to the size of a five shilling piece. She stated, that in all her previous labours the membranes had been no sooner ruptured, than, the expulsive pains coming on, the infant was born. Bearing in mind the effect of the ergot in the former case, I gave her a drachm of the powder in some brandy and water, as she was so much exhausted by the previous depletion, and the membranes, which were unusually thick, were then ruptured. Nearly half an hour elapsed, and there was neither pain nor hemorrhage, owing, I suspect, to her very debilitated state, as the pulse was extremely feeble and the extremities cold. Hot brandy and water was

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freely administered, and the uterine pains returned. These, in a few minutes, became continuous and severe, the detached portion of placenta was no longer to be felt, and in ten minutes my patient was delivered of a fine still-born child. The after-birth came away in fifteen minutes afterwards; but not two ounces of blood were lost from the time the ergot was given, till the moment of the expulsion of the placenta.

The result of this case, as far as the safety of the mother was concerned, was most satisfactory; but whether the death of the child was occasioned by the separation of a portion of the placenta, and the drainage that ensued, or whether it may be attributable to the ergot, I cannot determine. I am, however, inclined to ascribe it to the former cause, inasmuch as the *vis vitæ* was no sooner roused by the stimulant, than the power of the ergot began to manifest itself, and continued without interruption till the expulsion of the child took place.

I am likewise indebted to Mr. Jukes for the following case, as also illustrative of the value of ergot when judiciously employed:—In the month of April last, I was called suddenly to Mrs. A. I learnt, on my arrival, that during the night she was awaked by a rapid flow of what she conceived to be liquor amnii, but which, to her surprise, she afterwards discovered to be blood. I found her without pain, feeling only uneasiness around the lower part of the abdomen, and complaining of being faint. On examination, I found the os uteri dilated to the size of half-a-crown, and not at all rigid. There was evidently draining still going on, but the membranes were entire. It now became an important question, whether the case should be left to nature and watched, or whether labour should be brought on by some appropriate means. I accordingly sent for Mr. Ingleby, who concurred with me in the propriety of immediately rupturing the membranes most freely, (an important point in such a case) and, provided the presentation proved natural, to give her a full dose of ergot, and await the result: this was accordingly done. In about an hour and a half after, she was safely delivered of a living

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child; and the placenta followed without difficulty. She recovered rapidly from the effects of the delivery, but afterwards became the subject of anasarca.

The remarks just made on the subject of uterine hemorrhage, remind me so forcibly of a case of flooding subsequent to delivery, in which a novel mode of treatment was resorted to with such eminent success, that I am induced to record the particulars in this place.

Mrs. B., a thin phlegmatic woman, 28 years of age, was delivered of her first child, after a natural labour of six hours duration. The unaided expulsion of the placenta, in twenty minutes afterwards, was immediately succeeded by a tremendous gush of blood, which deluged the bed and bleached my patient. My hand was instantly applied to the hypogastrium, when I found the uterus loose and uncontracted. Desiring the nurse to make firm and steady pressure over the region of the womb with both her hands, I introduced my right hand into its cavity, in the hope of inducing immediate contraction. After a lapse of twenty minutes, and no change having been effected, I gave her a drachm-dose of powdered ergot, and repeated it in twenty minutes, but without any result. My hand had now been retained a considerable time in the uterus, and every attempt made to excite uterine action, by moving it from side to side, during which I could distinctly feel the fingers of the assistant through the attenuated walls of the womb and the abdominal parietes. My patient being now in a most alarming state, almost pulseless, but without hemorrhage, I requested the assistance of my friend, Mr. Thomas Taylor, and desired the messenger to bring, with all despatch, the apparatus for performing transfusion, and in the mean time I drenched her freely with brandy. On Mr. Taylor's arrival, he renewed the pressure to the external parts, and kneaded the belly from time to time, with a view to stimulate the uterus to contract, while my hand was still retained in its cavity. Although during this time no more blood had been lost, my patient, equally exhausted, evinced no signs of

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returning animation; and transfusion holding out the only chance of prolonging life, our friend, Mr. Ingleby, living in the immediate neighbourhood, was requested to assist us. While making the necessary preparations, it forcibly struck me that a sudden shock given to the womb would bring on contraction, and I was about resorting to that excellent plan recommended by Dr. Gooch, of pouring cold water on the naked belly from a height, when having a half-pint syringe in my hand, and the position of the patient favouring its employment, I at once injected eight ounces of cold water into the cavity of the uterus, and immediately repeated it, (Mrs. B. being at this time too exhausted to be at all conscious of what was going on.) The effect was perfectly magical: the uterus instantly and firmly contracted; the heart participated in the general shock, re-action commenced, and in half an hour my patient was safe in bed. So profuse a hemorrhage, and occurring, too, in so delicate a subject, was succeeded by anasarca; but this speedily yielding to the use of bark and ammonia, in combination with diuretics, I had the satisfaction of seeing my patient, in the course of a few weeks, perfectly restored to health.

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APPENDIX.

I. *Abstract of the Proceedings of the* MEDICAL SOCIETY *of the* STATE OF NEW-YORK, *at its Annual Session in February*, 1836.

THE Society met, pursuant to statute, at the Capitol, in the city of Albany, on the 2d of February, 1836.

PRESENT,

*Dr. John H. Steel, Permanent Member, *President.*
James M'Naughton, Permanent Member, *Vice President.*
Joel A. Wing, Permanent Member, *Secretary.*
Platt Williams, Permanent Member, *Treasurer.*
T. Romeyn Beck, Permanent Member.
Daniel Ayres, Permanent Member.
John G. Morgan, Permanent Member.
Samuel White, Permanent Member.
*Jonathan Eights, Permanent Member.
William Bay, Permanent Member.
Peter Wendell, Permanent Member.
Sumner Ely, Delegate, *Otsego.*
Hiram Corliss, Delegate, *Washington.*
John P. Higgins, Delegate, *Saratoga.*
Samuel P. Bishop, Delegate, *Tompkins.*
Calvin W. Smith, Delegate, *Herkimer.*
John James, Delegate, *Albany.*
*John McCall, Delegate, *Oneida.*
*Samuel M'Clallen, Permanent Member.
*Moses Hale, Permanent Member.
*Robert G. Frary, Delegate, *Columbia.*
*Richard Pennell, Permanent Member.
†Ferris Jacobs, Delegate, *Delaware.*

* Took their seats on the second day.
† Took his seat on the third day.

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The following gentlemen presented certificates as Delegates from their respective County Medical Societies, and took their seats accordingly:

Dr. A. G. Benedict, *Dutchess.*
*Simeon Snow, *Montgomery.*
Daniel H. Bissel, *Livingston.*
Henry Maxwell, *Niagara.*
Anson Coleman, *Monroe.*
Francis L Harris, *Erie.*
William S. Paddock, *St. Lawrence.*
Augustus Willard, *Chenango.*
E. B. Burroughs, *Madison.*
*Peter S. Swart, *Schoharie.*
Eli Pierce, *Greene.*
*James M. Gardiner, *Orange.*
*John F. Gray, *New-York.*
Lake G. Teft, *Onondaga.*

The following Physicians, being members of the Legislature, were invited to take seats as Honorary Members ex-officio:

Dr. Stoddard Judd, *Dutchess.*
John G. Tubbs, *Seneca.*
Lowrey Barney, *Jefferson.*
Nicholas B. Mead, *Chenango.*
Nathaniel Topping, *Suffolk.*
William A. Sutton, *Tioga.*
Samuel G Dimmick, *Sullivan.*
Daniel Denison, *Onondaga.*

Dr. Benjamin J. Walworth, President of the Medical Society of the county of Chautauque, and Dr. Charles B. Coventry, Professor in the Medical Department of Geneva College, were invited to take seats as Honorary Members

The following donations from County Medical Societies to the Medical Prize Fund, were received.

From Tompkins county,	$5 00	From Oneida county,	5 00
Washington,	5 00	Westchester,	5 00
Dutchess,	5 00	Niagara,	2 00

* Took their seats on the second day.

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Herkimer,	5 00	Onondaga,	3 00
Erie,	5 00	Madison,	3 00
Monroe,	5 00	Saratoga,	3 00
Albany,	5 00	Cheuango,	2 00
Columbia,	5 00	Montgomery,	3 00
New-York,	5 00	Schoharie,	3 00
Delaware,	2 00	Greene,	3 00
Orange, for 1835–6,	6 00	College P. & S W. D.	5 00
Kings, for 1835–6,	4 00		
St. Lawrence,	5 00		
			$99 00

Sundry lists of officers of County Medical Societies, were presented, and on motion, referred to the Committee of Publication.

The Treasurer presented his annual report, in words following to wit, and which, on motion was referred to a committee consisting of Drs. Ely, Higgins and Bishop.

The Treasurer of the Medical Society of the State of New-York, reports the following, as the state of the funds, this 2nd day of February, 1836.

By balance in the hands of the Treasurer, February 4, 1835, agreeable to the report of the committee appointed to examine the Treasurer's accounts,	$67 00
By cash from the Secretary, Dr. Joel A. Wing, being the amount received from 18 counties, and the College at Fairfield, as donations to the Medical Prize Fund,	80 00
By cash from the same—from the delegate of Columbia County Medical Society, for sets of transactions of the Society,	4 00
By cash from the same—being the amount sent by Dr. James R. Manley, Senior Censor, for thirteen diplomas, granted by the Censors of the Southern District,	130 00
By cash from Dr. Thomas Spencer, Senior Censor, for three diplomas, granted by the Censors of the Western District,	30 00
By cash, from the Secretary, Dr. Joel A. Wing, for one diploma, granted by the Censors of the Eastern District,	10 00
	$321 00

The expenditures for the year 1835, are shown by the following accounts and vouchers:

To cash paid Solomon Hays, May 2nd, 1235. for services during the session of the Society, for wood, paper, quills, &c., 1835, No. 1,	10 37½
To E. W. & C. Skinner, for binding By-Laws, 1 vol. Transactions, printing 500 circulars for Comitia Mi-	

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nora, printing 50 Rules of order, do 100 Requisitions for graduation, binding 2 Nos. Transactions to be sent to Europe, for the year 1832—for printing 400 circulars for Committee of Publication, do 150 Petitions of Comitia Minora, for 1833, 36 50

1835, May 27. Printing 100 Med. Transactions, part 2. vol 2, 150 00

$196 87

Amount of balance, 1835, 67 00
Amount of monies received, 1835, 254 00
Amount of expenditures, 1835, 196 87

Leaving a balance this day in the hands of the Treasurer, of $124 12

All which is respecfully submitted,

PLATT WILLIAMS, *Treasurer.*

The Censors of the Middle District, reported that they had not examined any students during the last year.

The Censors of the Eastern District, made a similar report.

The Censors of the Western District, made a similar report.

The Censors of the Southern District reported that they had examined and licensed the following:

1835. March 6. Michael Castle, *England.*
April 2. John Shanks,
10. Henry Willsher, *England.*
" Horatio Stone.
May 11. Henry Senff, *Germany.*
June 26. John B. Stillwell, *New-York.*
Sept. 18. George. C. Ball, *Brooklyn.*
Dec. 20. George Koch, *Island of Ceylon.*

The Comitia Minora, reported that at the last session of the Regents of the University, that body had declined to confer the Honorary Degree of Doctor of Medicine, on gentlemen recommended for that honor by this Society, and that said refusal had originated in an opinion that certain portions of the Revised Statutes, precluded the exercise of that power. The Comitia Minora therefore, recommended that a petition be presented to the Legislature, for an explanatory act on this subject.

On motion, the communication of the Comitia Minora, was referred to a committee consisting of Drs. Judd, Benedict and Mead.

On motion of Dr. Wendell,

Resolved unanimously, That the following entry be made on the minutes of the Society.

Whereas, this society have heard with deep regret, of the death of DAVID HOSACK, M. D., of the city of New York, long a distinguished member of this body: in testimony of our respect

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for his memory, and in remembrance of his numerous and valuable contributions to the science of medicine,

Resolved, That the members of this society will wear the usual badge of mourning during the present session.

Resolved further, unanimously, That a copy of the foregoing be be transmitted to the family of our lamented associate, and the same be likewise published in the newspapers of this city.

Dr. Bishop presented a medical topographical report of the county of Tompkins, which was read and referred to the Committee of Publication, (See Article 2, of the Transactions.)

On motion,

Resolved, That Drs. Ely, Judd, Coleman, Ayres and Morgan, be a committee to consider and report, what alterations, if any, are necessary in the existing Medical Laws.

Adjourned to to-morrow morning at 11 o'clock.

February 3, 1836.

The Society met. Present, the Vice President, and a quorum of the members.

The minutes of the last meeting were read and approved.

Dr. John F. Gray, presented a certificate from the Medical Society of the county of New-York, constituting him a Delegate to the State Medical Society, in the place of Dr. Piexotto, said to have removed from the State.

A remonstrance from Dr. Manley, and various other papers on the same subject, were also presented, and the whole subject was referred to a committee consisting of Dr. Eights, Judd, M'Call, Bay and Smith.

Dr. Charles B. Coventry, presented credentials as a Delegate from the Medical Faculty of Geneva College, to the State Society.

On motion, the consideration of said credentials was referred to the committee just appointed.

Dr. John M'Call, from the committee on Vaccination (appointed in 1834) made a report which was read and accepted, and on motion referred to the Committee of Publication. (See Article 3, of the Transactions.)

Dr. A. G. Benedict, from the committee to whom was referred the communication from the Comitia Minora, reported in favor of a memorial being presented to the Legislature, in the words following, to wit:

To the Honorable the Legislature of the State of New-York, in Senate and Assembly convened.

The petition of the Medical Society of the State of New York, respectfully represents:

That for several years past, on the nomination of the State Me-

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dical Society, the Regents of the University have annually conferred the Honorary Degree of Doctor of Medicine, on a few aged and respectable practitioners in various parts of the State. During the last session of that Board, doubts occurred, as to their power of conferring said degrees, and it was supposed that the provisions of Sect. 12, title 7, Chap. 14, of the 1st Part of the Revised Statutes, conflicted with the general power of conferring honorary degrees granted to the Regents, by Sect. 18. Title 1, Chap. 15, of Part 1, of the Revised Statutes.

As however, the Honorary Degree of Doctor of Medicine thus conferred, does not give any additional privileges, and as the provisions in the section last quoted, extend to all degrees above that of Master of Arts, we respectfully petition, that an explanatory act may be passed, reconciling the apparently discrepant language of the two sections, and that the regents of the University may be authorised to confer the Honorary Degree of Doctor of Medicine on any practitioner of medicine, legally entitled to practise physic and surgery, provided such practitioner has arrived at the age of forty five years and upwards.

On motion, said memorial was adopted and ordered to be signed by the President and Secretary, and presented to the Legislature.

A certificate from the Kings County Medical Society was read, appointing Dr. Pennel, its sub-delegate on all matters relative to said Society. (See Transactions, vol. 1, Appendix, Page 39.)

Dr. M'Call offered the following preamble and resolution, which were unanimously adopted.

Whereas, the number of insane and idiots in our State, is believed to be about 8,000, whose condition in many respects is truly deplorable, inasmuch as there are no devised means calculated to restore them to reason, their friends and the community; and whereas, there are in fact, but two institutions in our State, for their reception and medical treatment, viz: the Bloomingdale Asylum and the private one of Dr. White, of Hudson, capable of accommodating at most, not more than 300 patients, therefore,

Resolved, That a committee of three be appointed to draw up a memorial in relation to this important subject, to be signed by the members of this society, praying the Honorable the Legislature, now in session, for the endowment and erection of a suitable building for the reception and medical treatment of that unfortunate portion of our fellow citizens.

Resolved, That Drs. M'Call, Benedict and Beck, be said committee.

Resolved, That the memorial of this Society, on the same subject presented to the Legislature in 1834, be appended to the memorial now directed to be sent to the same body.

On motion, Resolved, That the Society will proceed to the election of officers at 5, P. M.

Adjourned until 4 P. M.

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Wednesday, 4, *P. M.*

The Society met, pursuant to adjournment.

Present, the President and a quorum of members. The minutes of the last meeting were read and approved.

Dr. Eights, from the committee to whom was referred the certificate of Dr. Coventry, appointing him a Delegate to this Society from the Medical Faculty of Geneva College,

Reported, that in their opinion, Dr. Coventry is not entitled to a seat in this Society, as they consider that the Medical School attached to that institution, does not constitute a Medical College, as contemplated by law.

The Committee further report, that they have examined the claim of Dr. Gray, as a Delegate from the Medical Society of the city and county of New-York, and they are of opinion that he is entitled to a seat in this Society as a Delegate.

The question on agreeing with the committee in their report was divided, and on the part relating to Dr. Coventry, debates were had, and a division was moved and agreed to.

On taking the vote, the question of the admission of Dr. Coventry, as a Delegate from the Medical Faculty of Geneva College, was decided in the Negative as follows:

FOR.	AGAINST.
Drs. Ely,	Drs. M'Naughton,
Morgan,	Beck,
Higgins,	Wing,
Bishop,	Ayres
James,	Corliss,
Paddock,	Bay,
Burroughs,	White,
Harris,	Smith,
Willard,	Benedict,
M'Call	Maxwell,
Coleman,	Pierce,
Teft,	Eights,
M'Clallen,	Frary,
Bissel.	Hale,
Ayes—14	Pennel,
	Snow,
	Gardiner.
	Noes—17

On the 2nd part of the report, the question of the admission of Dr. Gray, as a Delegate from the Medical Society of the city and county of New-York, was, after debate, decided in the affirmative, and Dr. Gray accordingly took his seat as a Delegate from said Society.

On motion, Resolved, That the address of the President, be delivered at 11 o'clock to-morrow morning.

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The Society then proceeded to the election of officers for the current year. Drs. Pennel and Burroughs, were appointed tellers.

The following were duly chosen.

Dr. JAMES M'NAUGHTON, *President.*
SAMUEL WHITE, *Vice-President.*
JOEL A. WING, *Secretary.*
PLATT WILLIAMS, *Treasurer.*

CENSORS.

Southern District.
Dr. JAMES R. MANLEY,
EDWARD G. LUDLOW,
JOHN C. CHEESMAN.

Eastern District.
Dr. JOHN M'CALL,
DANIEL AYRES,
MOSES HALE.

Middle District.
Dr. JONATHAN EIGHTS,
PETER WENDELL,
WILLIAM BAY.

Western District.
Dr. SAMUEL W. BISHOP,
HENRY MAXWELL.
LAKE G. TEFT.

COMMITTEE OF CORRESPONDENCE.

Dr. Anson Coleman, *Rochester, Monroe co.*
E. B. Burroughs, *Lebanon, Madison co.*
John G. Morgan, *Auburn, Cayuga co.*
Simeon Snow, *Root, Montgomery co.*
A. G. Benedict, *Redhook, Dutchess co.*
Robert G. Frary, *Hudson, Columbia co.*
Joel Foster, *New-York.*
Eli Pierce, *Athens, Greene co.*

Drs. Sumner Ely, of *Otsego*, and Robert G. Frary, of *Columbia county*, were elected Permanent Members.

Drs. Robley Dunglison, of *Maryland*, and Thomas Sewall, of the *District of Columbia*, were elected Honorary Members.

The following were nominated as Permanent Members:

Dr. Hiram Corliss, *Washington.*
A. G. Benedict, *Dutchess.*
Henry Maxwell, *Niagara.*

The following were nominated as Honorary Members:

Dr. Luther V. Bell, *New-Hampshire.*
James Mott, *St. Lawrence co.*
Charles D. Meigs, *Pennsylvania.*
John W. Francis, *New-York.*
Charles Ball, *Kings county.*
George Bushe, *New-York,*

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The Committee on Prize Questions and Dissertations reported that no Dissertations had been offered during the past year.

On motion, *Resolved*, That the following be the Prize Question for the current year, and that the sum of fifty dollars be offered for the best dissertation on the same.

The influence of Trades, Professions and Occupations in the United States in the production of disease.

The following were appointed the Committee on the Prize Question for the current year:

Drs. John B. Beck,
James R. Manley,
Richard Pennel,
John Stearns,
John C. Cheesman.

On motion, *Resolved unanimously*, That a committee of three be appointed to procure the opinion of the Attorney General of this State, on the question, whether the Medical Institution of Geneva College is entitled by law, to send a Delegate to the State Medical Society, and in case his opinion be in the negative, that the Comitia Minora be directed to petition the Legislature in behalf of this Society, that the Medical Faculty of Geneva College may be authorised to appoint a Delegate to this Society, with the same powers and privileges as the Delegates from the respective incorporated Medical Colleges.

Resolved, That Drs. Eights, Judd, and Smith, be the above committee.

Dr. M'Call, from the committee on the Insane Poor, reported the draft of a memorial to the Legislature, which after being read was unanimously approved, and directed to be signed by all the members present of the Society, and presented to the Legislature.

The memorial is in the following words:—

To the Honorable, the Legislature of the State of New-York, in Senate and Assembly convened.

The undersigned members of the State Medical Society, beg leave to solicit the attention of your honorable body, to the condition of that portion of your fellow citizens, who are suffering under the severest of all human afflictions, Insanity; and who, from their indigent circumstances, are subjects of public bounty and support. It is believed, that the whole number of insane persons, including idiots, in our State, is about 3,000, and that not more than one third of this number, have sufficient means for their support, leaving 2,000 to be supported at the public expense. We have in the State, only one incorporated Lunatic Asylum, and capable of accommodating only about 250 patients, and one private asylum, with accommodations for about 60 patients. Both of these institutions are merely for patients who pay. And it will be per-

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ceived that they cannot accommodate one half of the number who are supposed to be able to pay for their support. For the 2,000 pauper lunatics, it may truly be said, there is no provision, they are permitted to roam at large, a nuisance to community; are confined in their own dwellings, or consigned to all the horrors of the County Poor House; and in either case, no provision is made for their comfort or restoration to reason; and they continue, while life remains, to be a burden upon society; except perhaps in a very few instances, where the towns have defrayed the expense of sending them to an asylum.

The recovery of an insane patient under the present mode of supporting our pauper lunatics, is a very rare occurrence, which, by a different course, and by the establishment of a proper Asylum, four-fifths of the recent cases, may be restored to soundness and usefulness. In the report of the directors of the Connecticut Retreat for the insane for 1834, it is stated that more than nine-tenths of the recent cases were cured. It is confidently believed, that an individual can be supported cheaper, and much more comfortably in a properly conducted asylum, than by the present mode. But when we consider that a large portion would from recovery, soon cease to be subjects of public bounty—the economy of the measure, would present strong claims for your consideration.

In the language of a committee appointed by a former legislative body of our State, "the time has arrived when we are called upon to discharge the uncancelled obligations of religious, moral and social duty to that portion of our fellow citizens, whose appeal to our sympathies, justice and humanity, is the strongest which can, under any circumstances be made, by any portion of our population."

Your memorialists would therefore, respectfully request, that your honorable body, would make such adequate provision for their support and medical treatment (by the erection of a proper asylum) as in your wisdom, you may deem best calculated to restore that unfortunate portion of our population, to reason, their friends, and the community.

John M'Call,	T. Romeyn Beck,
A. G. Benedict,	Richard Pennel,
Daniel Ayres,	Simeon Snow,
H. Maxwell,	Jonathan Eights,
William Bay,	A. Willard,
E. B. Burroughs,	L. J. Tefft,
John F. Gray,	John P. Higgins,
C. W. Smith,	Ferris Jacobs,
John H. Steel,	James M'Naughton,
Joel A. Wing,	John James,
Robert G. Frary,	D. H. Bissell,
S. White,	Hiram Corliss,
Samuel P. Bishop,	A. Coleman,
James M. Gardiner,	Samuel M'Clallen.

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On motion of Dr. Benedict,

Resolved, That in all elections for officers, to be hereafter held by this Society, the candidate or candidates, having the highest number of votes, shall be declared as duly elected.

On motion of Dr. Beck,

Resolved, That the first and second Senatorial Districts, as they are now and shall be hereafter arranged, shall be called the *Southern*; the third and fourth the *Eastern*; the fifth and sixth the *Middle*; and the seventh and eighth the *Western District*; and that in the choice of Censors, one fourth of the number to be annually chosen, shall be residents of each of the above Districts.

The following resolution was unanimously adopted.

Whereas, by the dispensation of Providence, one of the permanent members of this Society, viz: Dr. Amos G. Hull, of New-York, has lately deceased, therefore,

Resolved, That the Society will wear the usual badge of mourning during the present session.

The committee on the Treasurer's accounts, reported that they had examined the same and found them correct.

Signed, S. ELY,
J. P. HIGGINS,
SAMUEL P. BISHOP.

On motion, the above report was accepted.

Adjourned until to-morrow morning at 10 o'clock.

February 4, 1836.

The Society met pursuant to adjournment.

Present, the President and a quorum of the members.

The minutes of the last meeting were read and approved.

Dr. Ely, from the committee appointed to examine the Medical Laws and to report whether in their opinion, any alterations therein are necessary, reported,

That in their opinion, the 13th and 17th sectio of the act of 1827, require the revision of the Legislature.

The 13th section to be so altered, as to require every student to be examined in the county where he has pursued medical studies for four months, immediately preceding his attendance upon his last course of lectures, or before the Censors of the State Medical Society.

And the 17th section to be so altered, as to make it necessary for every person coming from another State or country, to be examined and licensed by the Censors of the State Medical Society, before he shall be permitted to practise physic and surgery in this State.

The committee therefore submit the following resolution:

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Resolved, That the Secretary be directed to serve a copy of the above report on the Medical Committee of the House of Assembly.

On motion, the above report was accepted, and the resolution adopted.

The hour for the delivery of the President's address having arrived, the same was read.

Whereupon,

Resolved That the thanks of this Society be presented to the President, for his very able and interesting address read to the Society this day, and that a copy be requested for publication. (See Article 1. of the Transactions.)

On motion of Dr. Bishop, *Resolved*, That a bound copy of the Transactions of the Society, be presented to the State Library and to the Library of the Albany Institute.

On motion, *Resolved*, That no medical student shall be received for examination by the Censors of the State or County Medical Societies, until he shall have furnished certificates of having studied the full time prescribed by law, authenticated by the affidavit of his preceptor or preceptors, or in its absence, by his own affidavit.

Resolved, That when a student has attended lectures, he furnish a certificate from the College in which he attended, that he has attended a full course, or if not a full course, the extent of his attendance; and that his attendance has been regular, and his conduct and character as a student proper and respectable.

Resolved, That the Secretary transmit a copy of the above, to each County Medical Society, and to the Registers of the respective Medical Institutions in this state.

Resolved, That Drs. Beck, Eights and M'Naughton, be the Committee of Publication for the current year.

Resolved, That the President, Secretary and Treasurer, audit the contingent expenses of the Society, during the present session, and that the Treasurer pay the same on the warrant of the President.

Resolved, That such county societies as have not been supplied with vol. 2nd, of the Transactions, be furnished with one copy of the same, provided a sufficient number will remain for the use of the Society.

Resolved, That the transactions of the Society be continued on the present plan, for two years longer.

The minutes of the Society for the present session, were then read and approved.

Adjourned.

The seats of the following Delegates become vacant on the 1st of February, 1837.

Albany, Onéida, Cayuga, Otsego, Saratoga, Schenectady, Tioga, Cattaraugus, Richmond, Rockland, Steuben, Sullivan, Tompkins. College of Physicians and Surgeons, Fairfield.

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II. LIST OF OFFICERS OF COUNTY MEDICAL SOCIETIES—1836.

Albany County.

Dr. Barent P. Staats, President.
Alvah W. Rockwell, V. Pres.
Herman Wendell, Secretary.
Jarvis Barney, Treasurer.
Henry Van Antwerp, Librarian.

Censors—Dr. Hazael Kane,
John F. Townsend,
Abraham Groesbeeck,
Frederick Crounse,
David Springstead.

Annual Meeting second Tuesday in January.

Chenango County.

Dr. Nicholas B. Mead, President.
Harvey Harris, V. President.
Daniel M. Wakeley, Secretary.
William G. Sands, Treasurer.
Henry Mitchell, Librarian.

Censors—Dr. Laban Tucker,
James Thompson,
Devillo White,
William G. Sands,
Augustus Willard.

Dr. Augustus Willard, Delegate.

Annual Meeting, October.

Columbia County.

Dr. Robert G. Frary, President.
Peter Van Beuren, V. Pres.
G. H. White, Treas. & Librarian.
Robert Rosman, Secretary.

Censors—Dr. John H. Cole,
George W. Cook,
Samuel R. M'Clellan,
John M. Pruyn,
Henry H. Heermance.

Dr. R. G. Frary, Delegate.

Annual Meeting, first Tuesday in October.

Chautauque County.

Dr. B. Walworth, President.
R. W. Stockton, V. President.
C. E. Burrows, Secretary and Treasurer.

Censors—Dr. W. P. Proudfit,
T. D. Mann,
E. P. Upham,
S. Spencer,
O. Benedict.

Annual Meeting, October.

Dutchess County.

Dr. Stoddard Judd, President.
Henry D. SleightV. President.
Elias Trivett, Treasurer.
George F. Hurd, Secretary.

Censors—Dr. Richard A. Varrick,
John Cooper,
Calvert Canfield,
Peter D. Schenck,
Thomas T. Everett.

Dr. A. G. Benedict, Delegate.

Annual Meeting, November.

Greene County.

Dr. Abel Brace, President, *Catskill.*
Levi King, V. Pres. *Cairo.*
A. Brace, Treasurer.
Crist'r C. Hoagland, Sec'y, *Coxsackie.*

Censors—Dr. Philip Yates,
Harvey Camp,
John H. Wheeler,
Erastus A. Hamilton,
Josiah H. Steadman.

Eli Pierce, M. D., Delegate.

Annual Meeting, Tuesday after last Monday in May.

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Herkimer County.

Dr. Westel Willoughby, President.
Harvey W. Doolittle, V. Pres.
Moses Johnson, Secretary.
James L. Sherwood, Treasurer.

Censors—Dr. Lester Green,
John R. Brown,
David Bingham,
Francis B. Ethridge,
Hiram Hadley.

Dr. Calvin W. Smith, Delegate.

Annual Meeting, first Tuesday in January.

Kings County.

Dr. Isaac J. Rapelye, President.
John B. Zabriskie, V. Pres.
Wm. H. Van Sinderen, Treas.
John V. E. Vanderhoof, Sec'ry.

Censors—Dr. John C. Fanning,
F. W. Ostrander,
Parcell Cooke.

Dr. Samuel Boyd, Jr. Delegate.

Montgomery County.

Dr. William G. Comstock, Pres.
Peter Yost, V. President.
James W. Miller, Secretary.
Daniel Smith, Treasurer.

Censors—Dr. Zadock Barney,
Aaron W. Hull,
Morgan Snyder,
Henry Wood,
Simeon Snow.

Dr. Simeon Snow, Delegate.

Annual Meeting, June.

Madison County.

Dr. Edward Fuller, President.
Stillman Spooner, V. Pres.
Milton Barnett, Sec'ry and Lib.
O. Mead, Treasurer.

Censors—Dr. E. B. Burroughs,
Alvin Foord,
O. Mead,
Joel Norton,
J. S. Douglass.

E. B. Burroughs, M. D., Delegate.

Annual Meeting, July.

Monroe County.

Dr. James W. Smith, Pres.
D. G McClure, V. Pres.
W. W. Reed, Secretary.
F. F. Backus, Treasurer.

Censors—J. D. Henry,
A. Kelsey,
J. B. Elwood,
E. S. Marsh,
R. Kelsey,
G. Tabour,
E. G Munn.

Dr. Anson Colman: Delegate.

New-York.

Dr. David Rogers, Pres.
P. E. Milledoler V. Pres.
Wm. F. Piatt, Corr. Sec'y.
Jo's. W. Duvall R. Sec'y.
Ab'm. J. Berry, Treasurer.

Censors—Dr. Hans. B. Gram,
Robt. H. Maclay,
Alex. F. Vachi,
Geo. S. Bedford,
F. Ransom.

Jno. F. Gray, M. D. Delegate.

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Orange County.

Dr. James Heron, President.
Isaac D. Dodd, V. President.
Jerome Mills, Treasurer.
James S. Horton. Librarian.
Lewis Dunning, Secretary.

Censors—Dr. James Heron,
George Eager,
Isaac D. Dodd,
James M. Gardiner,
Lewis Dunning.

Dr. James M. Gardiner, Delegate.

Annual Meeting, May.

Onondaga County.

Dr. Schuyler Pulford, President.
Geo. W. Richards, V. Pres.
P. C. Sampson, Secretary.
George Hooker, Treasurer.

Censors—Dr. D. T. Jones,
Lake J. Tefft,
George W. Richards,
William Laughlan,
A. H. Cowles.

Dr. L. J. Tefft, Delegate.

Annual Meeting, second Tuesday in June.

Oneida County.

Dr. John P. Bacheldor, President.
Uriel H. Kellog, V. President.
Luther Guiteau, jr. C. & R. Sec'y.
Chas. B. Coventry, L. and Treas.

Censors—Dr. John M'Call,
Charles Babcock,
P. B. Peckham,
John P. Sloan.

Dr. John M'Call, Delegate.

Annual Meeting, first Tuesday in July.

Schoharie County.

Dr. Daniel H. Kibbe, President.
Julius Rowley, V. President.
Peter S. Swart Secretary.

Censors—Dr. Thos. B. Van Alstyne,
Samuel B. Wells,
Lorenzo Hubbard,
Peter S. Swart,
Cornelius H. Van Dyck,

Dr. Peter S. Swart, Delegate.

Annual Meeting, first Tuesday in October.

St. Lawrence County.

Dr. Socrates N. Sherman, Pres.
Francis Parker, V. Pres.
William Noble, Treasurer,
Darius Clarke, Secretary.

Censors—Dr. Albert Tyler,
Henry D. Laughlin,
John H. M'Chesney,
Sylvester Foord,
——— Murdock.

Dr. William S. Paddock, Delegate.

Tompkins County.

Dr. D. D. Page, Pres. *Dryden.*
Elbert Curtis, V. President.
John Stevens, Treasurer.
Sam'l P. Bishop, Sec'y and Lib.
Ithaca.

Censors—Dr. O. C. Comstock, Jr.
S. E. Clarke,
John Stevens,
G. W. Philips,
William Bacon.

Dr. Samuel P. Bishop, Delegate.

Annual Meeting, first Wednesday after the third Monday in May.

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Ulster County.

Dr. Peter Crispell, Jr. Pres.
William Gidney, V. Pres.
Barnet M'Clelland, Secretary.
Garritt D. Crispell, Treasurer.

Censors—Dr. Benjamin Bevier,
John Bogardus,
Richard Elting,
Marcus Dougherty,
William C. Dewitt.

Dr. Thomas J. Nelson, Delegate.
Annual Meeting, June.

Washington County.

Dr. Solomon Axtill, President.
J. W. Richards, V. Pres.
James Savage, Rec. Sec'ry.
Henry C. Gray, Cor. Sec'ry.
Hiram Corliss, Treasurer.

Censors—Dr. Robert Stevenson,
David Martin,
Albert Wright.

Dr. Hiram Corliss, Delegate.

III. CLASSIFICATION OF COUNTIES.

[The first Classification of Counties was made pursuant to the statute of 1806, at the session of the Society in 1807—The additional counties subsequently erected, were classified by virtue of powers given by the same statute, at the sessions of the Society held in 1813 and 26. In case of the erection of any new county, the Secretary is directed to add the same, so as to keep the present number as nearly equal as possible.]

The Seats of Delegates from the respective Counties, will become vacant as follows:

Vacant.	Vacant.	Vacant.	Vacant.
Feb. 1, 1837.	*Feb.* 1, 1838.	*Feb.* 1, 1839.	*Feb.* 1, 1840.
Albany,	Westchester,	New-York,	Greene,
Oneida,	Columbia,	Orange,	Dutchess,
Cayuga,	Ulster,	Delaware,	Jefferson,
Otsego,	Madison,	Onondaga,	Ontario,
Saratoga,	Herkimer,	Montgomery,	Essex,
Schenectady,	Chenango,	Rensselaer,	Lewis,
Tioga,	Washington,	Genesee,	Schoharie,
Cattaraugus,	Clinton,	Seneca,	Niagara,
Richmond,	Suffolk,	Allegany,	Warren,
Rockland,	St. Lawrence,	Broome,	College of P. and S. New-York,
Steuben,	Cortland,	Franklin,	
Sullivan,	Erie,	Livingston,	Chautauque,
Tompkins,	Hamilton,	Monroe,	Orleans,
College of P. and S. Fairfield, 14.	Kings,	Oswego,	Putnam,
	Wayne, 15.	Yates, 15.	Queens, 14.

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IV. LIST OF HONORARY AND PERMANENT MEMBERS OF THE STATE MEDICAL SOCIETY.

HONORARY MEMBERS.

[The election of Honorary Members is authorised by statute. The Society in its by-laws, after declaring that certain individuals shall be honorary members, by virtue of their present or previous offices, have directed that only two honorary members shall be annually elected—having been nominated at least a year previous.]

*Benjamin Rush, *Philadelphia*, elected	February 6, 1808.
*Nathan Smith, *New-Haven*,	do.
John Pomeroy, *Burlington, Vt.*	do.
John Miller, *Cortland, N. Y.*,	do.
*Moses Willard, *New-York*,	do.
*John Warren, *Boston*,	February 7, 1810.
Rev. Alexander Proudfit, *Salem, N. Y.*,	do.
*Samuel L. Mitchill, *New-York*,	February 3, 1811.
*David Hosack, do.	do.
*Nicholas Romayne, do.	February 4, 1812.
John Stearns, do.	do.
*Lyman Spalding, do.	February 3, 1813.
George C. Shattuck, *Boston*,	do.
James Hadley, *Fairfield, N. Y.*,	February 4, 1817.
*John Murray, *Edinburgh*,	do.
*Wright Post, *New-York*,	February 3, 1819.
John C. Warren, *Boston*,	do.
Valentine Mott, *New-York*,	February 3, 1820.
Josiah Noyes, do.	February 5, 1823.
Nathaniel Chapman, *Philadelphia*,	do.
Daniel Drake, *Cincinnati*,	February 4, 1824.
John D. Henry, *Rochester, N. Y.*,	do.
Philip S. Physick, *Philadelphia*,	February 2, 1825.
Joseph Gallup, *Burlington, Vt.*,	do.
Joseph Lovell, *Washington, Dist. of Col.*	February 5, 1827.
*John Onderdonk, *New-York*,	do.
John Lizars, *Edinburgh*,	February 6, 1828.
William Hammersley, *New-York*,	do.
Samuel White, *Hudson, N. Y.*,	February 5, 1829.
J. Augustine Smith, *New-York*,	do.
Eli Ives, *Connecticut*,	February 3, 1830
John G. Gloninger, *Pennsylvania*,	do.
George M'Clellan, *Pennsylvania*,	February 2, 1831.
*Eli Todd, *Connecticut*,	do.

* *Deceased.*

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Thomas C. James, *Pennsylvania*,	February 8, 1832.
Thomas W. Henry, *Kings county, N. Y.*,	do.
Walter Channing, *Massachusetts*, elected	February 6, 1833.
Reuben D. Mussey, *New-Hampshire*,	do.
James C. Cross, *Kentucky*,	February 5, 1834.
Alfred T. Magill, *Virginia*,	do.
Samuel Jackson, *Pennsylvania*,	February 4, 1835.
John Eberle, *Ohio*,	do.
Robley Dunglison, *Maryland*,	February 3, 1836.
Thomas Sewall, *District of Columbia*,	do.

PERMANENT MEMBERS.

[The Society by statute is permitted to elect two Permanent Members annually "which persons so elected, are entitled to all the privileges of tho same." By a resolution passed during the session of the society in 1829, it was resolved that thereafter, no person be elected as a permanent member, unless he has served as a delegate, and been nominated at a previous anniversary meeting.]

*Nicholas Romayne,	February 3, 1813.
*Samuel Bard,	do.
*William Wilson,	February 2, 1814.
John Stearns,	do.
Charles D. Townsend,	February 7, 1815.
John Ely,	do.
Westel Willoughby,	February 6, 1816.
*David Hosack,	do.
*Samuel L. Mitchill,	February 4, 1817.
T. Romeyn Beck,	do.
*Joseph White,	February 4, 1818.
*Cornelius E. Depew,	do.
William Bay,	February 3, 1819.
*Lyman Spalding,	do.
*Felix Pascalis,	February 3, 1820.
*Amos G. Hull,	do.
*Charles Drake,	February 7, 1821.
Peter Wendell,	do.
James R. Manley,	February 5, 1822.
*Alexander Coventry,	do.
Luther Guiteau,	February 5, 1823.
*Thomas Brodhead,	do.
John H. Steel,	February 4, 1824.
Laurens Hull,	do.
Jonathan Eights,	February 2, 1825.

*Deceased.

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Henry Mitchell,	February 2, 1825.
*John Watts,	February 9, 1826.
Daniel Ayres,	do.
Elial T. Foote,	February 5, 1827.
John C. Cheesman,	do.
Platt Williams,	February 6, 1828.
Richard Pennel,	do.
John B. Beck,	February 5, 1829.
Harvey W. Doolittle,	do.
Moses Hale,	February 3, 1830.
Alpheus S. Greene,	do.
Edward G. Ludlow,	February 2, 1831.
James M'Naughton,	do.
Joel A. Wing,	February 8, 1832.
Joel Foster,	do.
John G. Morgan,	February 6, 1833.
Samuel White,	do.
William Tayler,	February 5, 1834.
William Horton, Jr.,	do.
Thomas Spencer,	February 4, 1835.
Samuel M'Clallen,	do.
Sumner Ely,	February 3, 1836.
Robert G. Frary.	do.

V. LIST OF LICENTIATES OF THE MEDICAL SOCIETY OF THE STATE OF NEW-YORK.

(Continued from Vol. I. of the Transactions; Appendix, page 67.)

Date of Diploma.		
1833.	Nathan R Teft,	*Onondaga.*
	William Vanderhoof,	*Dutchess.*
	Theodore Fowler,	*do.*
	John Sickles, Jr.	*New-York.*
	George W. Hodgson,	*do.*
	John A. M'Vickar,	*Lewis.*
	Albert H. Greenly,	*Jefferson.*
	Robert P. Butler,	*England.*
	Alanson Prime,	*New-York.*
	Haleted Hermans,	*Albany.*
1834.	Dean Hathaway,	*Madison.*
	Frederick W. Hurd.	
	Samuel Hart.	

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	Edward M. Guion.	
	William H. Beers.	
	Elias Peck.	
	Elias T. Pentz.	
	William P. Turpin.	
	Joshua B. Fowler.	
	George Jones.	
	William H. Day.	
	James R. Baldwin.	
	Cornelius B. Archer.	
	Lewis Post.	
	James Foran.	
	Charles Clarke.	
	J. B. Scovel.	
	Philip T. Heartt.	
1835.	Michael Castle,	*England.*
	John Shanks.	
	Henry Wilsher,	*England.*
	Horatio Stone.	
	Henry Senff,	*Germany.*
	John B. Stilwell,	*New-York.*
	George C. Ball,	*Brooklyn.*
	George Koch,	*Island of Ceylon.*

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VI. *Abstract of the Proceedings of the* MEDICAL SOCIETY *of the* STATE OF NEW-YORK, *at its Annual Session in February*, 1837.

The Society met pursuant to statute, at the Capitol, in the city of Albany, on the 7th of February, 1837.

PRESENT,

Dr. James M'Naughton, Permanent Member, *President.*
Samuel White, Permanent Member, *Vice President.*
Joel A. Wing, Permanent Member, *Secretary.*
Platt Williams, Permanent Member, *Treasurer.*
Hiram Corliss, Delegate, *Washington.*
Thomas Spencer, Permanent Member.
Nicholas B. Harris, Delegate, *Rensselaer.*
Robert G. Frary, Permanent Member.
Lake G. Tefft, Delegate, *Onondaga.*
Calvin W. Smith, Delegate, *Herkimer.*
Simeon Snow, Delegate, *Montgomery.*
Harvey W. Doolittle, Permanent Member.
Eli Pierce, Delegate, *Greene.*
William S. Paddock, Delegate, *St. Lawrence.*
William Horton, Permanent Member.
Richard Pennel, Permanent Member.
Augustus Willard, Delegate, *Chenango.*
E. B. Burroughs, Delegate, *Madison.*
Ferris Jacobs, Delegate, *Delaware.*
Peter Wendell, Permanent Member.
William Bay, Permanent Member.
T. Romeyn Beck, Permanent Member.
*A. G. Benedict, Delegate, *Dutchess.*

The following gentlemen presented certificates as Delegates from their respective County Medical Societies, and took their seats accordingly:

Dr. Peter Van Olinda, *Albany.*
William Tibbits, *Saratoga.*
Daniel D. Page, *Tompkins.*
†Peter Van Buren, *Columbia.*

*Took his seat on the second day.

† In the room of Dr. Frary, elected a permanent member.

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Alexis Smith, *Otsego.*
Thomas B. Downing, *Kings*
H. H. Bissel, *Erie.*
Lansing Briggs, *Cayuga.*
Thomas Goodsell, *Oneida.*

Dr. Richard Pennel presented a communication from the Medical Society of the county of New-York, stating that at a meeting held February 3d, 1837, Richard Pennel had been duly elected Delegate from said Society to the State Medical Society.

A protest from Dr. John F. Gray, against the validity of said appointment, on the ground that his term of office had not expired, was also read.

On motion, the consideration of the above subject was referred to a committee consisting of Drs. Frary, Pierce and Spencer.

The following Physicians, members of the State Legislature, were invited to take their seats as *ex-officio* Honorary Members.

Dr. David Arne, Jr. *Wayne.*
Levi Buckingham, *Oneida.*
Curtiss C. Cady, *Cayuga.*
Merrit H. Cash, *Orange.*
Daniel Dennison, *Onondaga.*
Lewis Halsey, *Tompkins.*
William Morrison, *Orange.*
Joseph W. Richards, *Washington.*
Elisha Smith, *Erie.*

Dr. Nicholas B. Mead, a former member of the Society, was invited to take his seat as an Honorary Member.

The following donations from County Medical Societies to the Medical Prize Fund, were received.

From Oneida County,	$5 00	Saratoga,	5 00
Herkimer,	5 00	Montgomery,	2 00
Albany,	5 00	Tompkins,	5 00
Cayuga, (1836–7)	10 00	Chenango,	5 00
Rensselaer,('35-6-7)	15 00	Columbia,	5 00
Orange,	5 00	Delaware,	2 00
Erie,	5 00	Schoharie,	3 00
Washington,	5 00	Genesee,	3 00
St. Lawrence,	5 00	Coll. Physicians & Surgeons, W. District,	5 00
Madison,	3 00		
Kings,	2 00		
			$100 00

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Sundry lists of officers of County Medical Societies were presented, and on motion, referred to the Committee of Publication.

The Committee to whom was referred the certificate of Dr. Richard Pennel, as Delegate from the Medical Society of the City and County of New-York, and also the remonstrance of Dr. John F. Gray, against the same,

Report, That as Dr. Gray was duly admitted to a seat in the Society at its last meeting, and his term of service not having expired, and as there is no proof before this committee that there was any illegality in the election of Dr. Gray, the committee are therefore of opinion that Dr. Pennel is not entitled to a seat as Delegate.

ROBERT G. FRARY, *Chairman.*

On motion, the above report was accepted.

The Censors of the Southern District reported that they had examined and licensed the following:

1836. Feb. 3. Mr. Marcellis, *City of New-York.*
" John Johnston, *England.*
6. Mr. Trivett, *Dutchess County, N. Y.*
10. Peter M'Naughton, *Montgomery Co. N.Y.*
17. Ephraim Case.
24. Samuel M. Crawford.
March 3. Thomas B. Lacey, *Brookfield, Conn.*
5. Jesse Delano, Jr. *New-York City.*
July 7. Moses D. Van Pelt.
9. William H. Maxwell.
Oct. 28. George Adams.
Nov. 8. Gustavus Adolphus Sabine.

The money for the same ($120) was transmitted by Dr. Pennel.

The Censors of the Middle District reported that they had examined and licensed the following:

1836, June 10. Edward Q. Sewell, M. D. *of Canada.*
Aug'st 1. John H. Trotter, *of Albany.*

The fees for the above had been paid over to the Treasurer, and are credited in his report,

The Censors of the Western District reported that they had examined and licensed the following:

Lambert Whitney, *of Cattaragus County.*
D. S. Olin, *of St. Lawrence County.*
William L. Hamilton, *of Tompkins County.*
Enoch T. Campbell, *of Otsego County.*
Daniel M'Ewen, *Pennsylvania.*
J. W. Van Every, *of Monroe County.*

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The fees for the above were in the hands of Dr. Tefft, subject to the draft of the Treasurer.

The Censors of the Eastern District made no report.

The By-laws of the following County Medical Societies were presented and on motion referred to the Standing Committee on that subject.

Medical Society of City and County of New-York, 1836.
Herkimer County Medical Society, 1837.
Genesee County Medical Society, 1836.

The Treasurer presented his annual report in words following, which on motion was referred to a committee, consisting of Drs. Horton, Willard and Tibbits.

The Treasurer of the Medical Society of the State of New-York, reports the following, as the state of the funds, this 7th day of February, 1837.

By balance in the hands of the Treasurer the 2d day of February 1836, agreeable to the report of the committee appointed to examine the Treasurer's accounts,	$124 12
By cash from the Secretary, Dr. Joel A. Wing, being the amount received from 21 counties, and the College at Fairfield, as donations to the Medical Prize Fund,	99 00
By cash from the same—from the Secretary of Genesee County Medical Society, Dr. John Cotes,	6 00
By cash from the Secretary, Dr. Joel A. Wing, for seven copies of Transactions sold,	7 00
By cash from the same—for two diplomas, granted by the Censors of the Middle District,	20 00
By cash from the same—being the amount received from James R. Manley, senior censor, for eight diplomas, granted by the Censors of the Southern District,	80 00
	$336,12

The expenditures are shown by the following accounts and vouchers, for the year 1836.

1836. March 10th. To cash paid to Hoffman & White, publishers of the Albany Evening Journal, for advertising annual meeting of the society, January 29th, 1836,—Voucher No. 1,	1 00
March 26. To cash paid to the proprietors of the Albany Daily Advertiser, for advertising two notices of annual meetings, Feb. 2d, 1835, and January 30th, 1836—Voucher No. 2,	1 50

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May 2d. To cash paid to E. W. & C. Skinner, printers, for one hundred numbers Transactions of the Medical Society of the State of New-York, Vol. III, part 1,	150 00
100 Extra Appendix—Voucher No. 3,	5 00
May 17. To cash paid to Solomon Hays, for services during the session of the Society, three days, half a ream of paper, quills, wood, &c.—Voucher No. 4,	9 75
July 27th. To cash paid to the Secretary, Dr. Joel A. Wing, to pay to James Webster, agent at New-York, for the N. S. Medical and Surgical Journal—for ninety-five copies of the condensed history of the Transactions of the Society—Voucher No. 5,	26 00
	$193 25
Amount of balance 1836,	124 12
Amount of monies received 1836,	212
Amount of expenditures 1836,	193 25
Leaving a balance this day in the hands of the Treasurer, of	$142 87

All which is respectfully submitted.

PLATT WILLIAMS, *Treasurer.*

On motion, *Resolved,* That Drs. Dennison, Paddock and Richards, be a committee to wait on the Speaker of the Assembly, and request the use of the Assembly Chamber to-morrow afternoon, at half past 3 o'clock, for the delivery of the President's Address.

On motion, *Resolved,* That the Secretary be authorized to procure an engraving for striking suitable certificates of membership, for its various members, and that he draw on the Treasurer for the necessary expense.

Dr. William Bacon communicated, by letter, a Medical Topographical account of the County of Tioga, which after being read, was referred to the Committee of Publication. (See Article 6, of the Transactions.)

The following report from the committee on Prize Questions and Dissertations was read.

The committee on Prize Questions report to the State Medical Society, that they have adjudged the prize to the dissertation of which BENJAMIN W. M'CREADY, M. D., of New-York, is the author.

JOHN B. BECK, *Chairman.*

The above dissertation was read, and on motion, referred to the Committee of Publication. (See Article 5, of the Transactions.)

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The committee on the Treasurer's Accounts, reported that they had examined the same, and found them correct, which report was duly accepted.

The Society then adjourned to meet at 4 P. M.

Tuesday, 4 *P. M.*

The Society met pursuant to adjournment. Present, the President and a quorum of members.

The minutes of the last meeting were read and approved.

The Secretary announced that since the last meeting of the Society,

Dr. ALEXANDER SHELDON, of Montgomery county, formerly Vice President, and

Dr. MOSES HALE, formerly a Delegate from Rensselaer county, and a Permanent Member, had both deceased—

Whereupon, *Resolved*, That the members will wear the usual badge of mourning during the present session of the Society.

On motion, *Resolved*, That the Censors of the State Medical Society, in their annual reports of candidates licensed, be requested to particularize, among the number examined, those who were students of medicine, and those who were practitioners from another state or country.

It being understood that several essays on subjects proposed as prize questions, remain unclaimed by the authors, and are in the possession of the Society,

Resolved, That the Committee of Publication and the Secretary, be a committee to determine on the expediency and propriety of printing one or more of the same in the Transactions of the Society.

Resolved, That the Committee of Publication be authorized to publish in the current volume of the Transactions, any medical communication that they may receive after the adjournment of the Society, and in case the original matter be not sufficient to complete the required number of pages, that they be authorised to add sufficient selected matter.

The Society then adjourned to meet to-morrow morning at 11 o'clock.

February 8*th*, 1837.

The Society met pursuant to adjournment. Present, the President and a quorum of the members.

The committee appointed to ask the use of the Assembly Chamber, reported that they had attended to the same, and that leave was granted.

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The following resolutions from the Chenango County Medical Society were presented, and after some discussion were referred to a committee consisting of Drs. Briggs, Spencer and Paddock.

"*Resolved*, That in the opinion of this society the tedious and unwholesome duties of the physician and surgeon in medico-legal investigations are not fully appreciated by the laws of this state.

"*Resolved*, That our Delegate to the State Medical Society be authorized to present the subject at the next session of said Society, and urge a petition to the State Legislature at the earliest possible season, praying for the amendment of the statute in reference to this subject, and providing a fair compensation for such services.

"*Resolved*, That until such amendment be made, we will not assist at any autopsical examinations, nor make any chemical analysis for the purpose of aiding in criminal investigations, unless previously assured that for all such services we shall be fairly and honorably paid."

The Society then proceeded to the election of Officers for the current year, and on canvassing the ballots, the following persons were found to be elected.

Dr. JAMES M'NAUGHTON, *President.*
SAMUEL WHITE, *Vice President.*
PETER VAN OLINDA, *Secretary.*
PLATT WILLIAMS, *Treasurer.*

CENSORS.

1st and 2nd, or Southern Senatorial Districts.
Dr. JAMES R. MANLEY,
EDWARD G. LUDLOW,
JOHN C. CHEESEMAN.

5th and 6th, or Middle Senatorial Districts.
Dr. E. B. BURROUGHS,
DANIEL D. PAGE,
AUGUSTUS WILLARD.

3d and 4th, or Eastern Senatorial Districts.
Dr. JONATHAN EIGHTS,
WILLIAM BAY,
JOEL A. WING.

7th and 8th, or Western Senatorial Districts.
Dr. LAKE G. TEFFT,
H. MAXWELL,
H. H. BISSEL.

COMMITTEE OF CORRESPONDENCE.

Dr. T. Romeyn Beck, *Albany.*
Hiram Corliss, *Washington.*
Robert G. Frary, *Columbia.*
Eli Pierce, *Greene.*
Thomas Goodsell, *Oneida.*
Thomas Spencer, *Ontario.*
Harvey W. Doolittle, *Herkimer.*
H. H. Bissell, *Erie.*

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Dr. Bryant Burwell, of *Erie*, and Dr. Calvin W. Smith, of *Herkimer*, were elected Permanent Members.

Dr. Luther V. Bell, of *New-Hampshire*, and Dr. Charles D. Meigs, of *Pennsylvania*, were elected Honorary Members.

The following were appointed the Committee on Prize Questions and Dissertations for the current year:

Dr. John B. Beck,
James R. Manley,
Richard Pennel,
John C. Cheeseman,
Thomas Dewning.

The following were nominated as Permanent Members:

Dr. Thomas Goodsell, *Oneida.*
Eli Pierce, *Greene.*
Ferris Jacobs, *Delaware.*
Levi Farr, *Chenango.*
Ira H. Smith, *Cayuga.*
Peter Van Buren, *Columbia.*
James W. Miller, *Montgomery.*
Charles Winne, *Erie.*

The following were nominated as Honorary Members:

Dr. Matthew Wendell, *Long Island.*
Jacob Bigelow, *Massachusetts.*
George Wood, *Pennsylvania.*
Jonathan Knight, *Connecticut.*
Daniel Oliver, *New-Hampshire.*
Lewis C. Beck, *New-York.*

Adjourned until half past 3, P. M.

Half past three, P. M.

The Society met pursuant to adjournment, and proceeded to the Assembly Chamber to hear the delivery of the President's address.

After hearing the same, they returned to their rooms, when the following resolution was offered by Dr. Benedict, and unanimously adopted.

Resolved, That the thanks of this Society be presented to the President for his very able and interesting address delivered before the Society, and that he be requested to furnish a copy for publication.

On motion, *Resolved*, that 300 copies of the address of the President be published in a pamphlet form, and that the Secretary

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cause a copy to be furnished to each member of the Legislature, and the remainder to be distributed to the several County Medical Societies.

On motion, *Resolved*, unanimously, that the thanks of this Society be presented to Dr. Joel A. Wing, for his long and faithful services as Secretary of this Society.

Resolved, That Drs. Beck, Eights, M'Naughton and Wing be the Committee of Publication for the current year.

On motion, *Resolved*, That the petition presented to the Legislature during its last session, in relation to an explanatory act, concerning the power of the Regents to confer Honorary Degrees on Practitioners of Medicine, recommended by the State Medical Society, be again presented to the Legislature, and that the President and Secretary sign the same in behalf of the Society.

On motion, *Resolved*, that the Prize Question for the current year be as follows:

THE DISEASES of the SPINAL COLUMN—their causes, diagnosis, history, and best mode of treatment.

Resolved, That the sum of one hundred dollars be offered for the best dissertation on the above subject.

The committee to whom were referred the resolutions from the Chenango County Medical Society reported as follows:

Your committee are of opinion that a coroner's subpœna under the existing laws of the state, can require or elicit nothing more from the physician or surgeon in medico-legal investigations, than from his fellow citizens, whether professional or non-professional, and if extraordinary services are required at his hands by way of autopsical examination or chemical analysis, your committee deem them so palpably deserving of consideration, that there can be but little or no doubt that they ought to be satisfactorily adjusted by all intelligent boards whose duty it is to recognise such claims.

On motion, the above report was accepted, and the following resolutions were adopted.

Resolved, That in the opinion of this Society, it is not the duty of physicians and surgeons to make post-mortem examinations or perform chemical investigations before coroners, in counties where compensation is refused.

Resolved, That this Society recommend to the several County Societies, to express their views on the attendance of medical men at coroner's inquests.

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Resolved, That the President, Secretary, and Treasurer, audit the contingent expenses of the present session, and the Treasurer pay the same on the warrant of the President.

Adjourned.

The seats of the Delegates from the following counties become vacant on the 1st of February 1838—Westchester, Columbia, Ulster, Madison, Herkimer, Chenango, Washington, Clinton, Suffolk, St. Lawrence, Cortland, Erie, Hamilton, Kings, Wayne, Medical Faculty of the New-York City University.

VII. LIST OF OFFICERS OF COUNTY MEDICAL SOCIETIES—1837.

Albany County.

Dr. John W. Bay, President.
Leonard G. Warren, V. Pres.
Abraham Groesbeeck, Sec'y.
John F. Townsend, Treasurer.
D. M'Lachlan, Librarian.

Censors—Dr. Peter M'Naughton, Henry Van Olinda, James P. Boyd, Jonathan H. Case, Palmer C. Dorr.

Dr. Peter Van Olinda, Delegate.

Annual Meeting, second Tuesday in January.

Cayuga County.

Dr. G. W. Fitch, *Montezuma*, Pres.
H. D. Eldridge, *Port Byron*, V. P.
F. H. Hamilton, *Auburn*, Sec'y.
W. W. Williams, *Weedsport*, Tr.

Censors—Dr. W. W. Williams, A. Thompson, S. Gilmore, O. W. Blanchard.

Dr. Lansing Briggs, Auburn, Delegate.

Annual Meeting, first Thursday in June.

Chenango County.

Dr. Austin Rouse, *Oxford*, Pres.
Devillo White, *Sherburne*, V. P.
D. M. Wakeley, *North Norwich*, Sec'y.
William G. Sands, *Oxford*, Treas.
C. H. Mitchell, *Norwich*, Librarian.

Censors—Dr. W. G. Sands, A. Willard, James Thomson, D. M. Wakeley, D. White.

Dr. Augustus Willard, Delegate.

Annual Meeting, October.

Columbia County.

Dr. P. Van Buren, *Clermont*, Pres.
John Van Der Poel, V. Pres.
G. H. White, Treas. and Lib'n.
Robert Rossman, Secretary.

Censors—Dr. George W. Cook, John M. Pruyn, John H. Cole, Volkert Whitbeck, Robert Clow.

Dr. Peter Van Buren, Delegate.

Annual Meeting, first Tuesday in October.

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Delaware County.

Dr. Philip Basset, *Colchester*, Pres.
Henry Cady, Vice President.
Ebenezer Steele, *Delhi*, Sec'y.
Caleb L. Taft, Treasurer.

Censors—Dr. Ferris Jacobs,
Calvin Howard,
Ebenezer Steele,
Solomon Greene,
Amasa P. Mann.

Dr. Ferris Jacobs, Delegate.

Annual Meeting, May.

Erie County.

Dr. J. E. Hawley, *Buffalo*, Pres.
Orlando Wakelee, *Clarence*, V. P.
G. F. Pratt, *Buffalo*, Sec'y.
Charles Winne, *Buffalo*, Treas.
Barns, *Buffalo*, Lib'n.

Censors—Dr. Bryant Burwell,
A. Sprague,
Francis L. Harris,
C. Emmons,
Camp.

Dr. H. H. Bissel, *Lancaster*, Delegate.

Genesee County.

Dr. J. A. Billings, *Batavia*, Pres.
L. I. Woodruff, *Byron*, V. P.
I. Hurlburt, *Warsaw*, Sec'y.
W. W. Webster, *Batavia*, Lib'n.

Censors—Dr. John Cotes,
A. R. R. Butler,
William H. Webster,
I. Hurlburt,
I. A. Billings.

Dr. John Cotes, Delegate.

Annual Meeting, second Tuesday in January.

Greene County.

Dr. Abel Brace, *Catskill*, Pres.
Levi King, *Cairo*, V. Pres.
Abel Brace, Treasurer.

Censors—Dr. Philip Yates,
Harvey Camp,
John H. Wheeler,
Erastus A. Hamilton,
Josiah H. Steadman.

Dr. Eli Pierce, *Athens*, Delegate.

Annual Meeting, Tuesday after last Monday in May.

Herkimer County.

Dr. W. Willoughby, *Newport*, Pres.
Harvey W. Doolittle, V. Pres.
Moses Johnson, *Fairfield*, Sec'y.
James L. Sherwood, Treas.

Censors—Dr. Lester Greene,
John R. Brown,
Francis B. Ethridge,
David Belknap,
Andrew F. Doolittle.

Dr. Calvin W. Smith, Delegate.

Annual Meeting, first Tuesday in June.

Kings County.

Dr. Matthew Wendell, President.
A. Vanderveer, V. President.
F. W. Hurd, Treasurer.
Alfred C. Post, Secretary.

Censors—Dr. J. S. Thorn,
George Marvin,
C. Frink.

Dr. Thomas B. Downing, Delegate.

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Members.

Wm. D. Creed,	Thos. B. Downing,	F. W. Ostrander,
George Cox,	Robert Edmonds,	J. V. E. Vanderhoof,
John Zabriskie,	Charles Ball, Sen.	Samuel Boyd, Jr.
Isaac F. Rapilyea,	Jas. E. Dubois,	F. W. Hurd,
John C. Fanning,	Wm. H. Van Sindren,	J. S. Thorn,
Wm. G. Hunt,	George Marvin,	T. Henry,
John Carpenter,	Cyrus Frink,	Matthew Wendell,
T. L. Mason,	Lucius Hyde,	A. Vanderveer,
S. C. Merwin,	Joseph Howard,	John P. Tarbell,
Abm. Van Pelt,	Henry Willshire,	Purcell Cooke,
Charles Rowland,	T. F. King,	C. S. Cooke,
J. W. Brooks,	Samuel Hart,	N. A. Garrison,
George Gillfilland,	George C. Ball,	B. Parker.
A. C. Post,	M. Schoonmaker,	

Deceased Members.

I. G. T. Hunt,
T. J. Jones,
S. Low,
P. M'Givney,
Charles Ball, Jr.
John Cole,
N. Hurd.

Honorary Members.

Dr. Hosack,
Pennel,
Haslett, U. S. N.
Cooke, U. S. N.

All the Officers of the King's County Medical Society reside in the City of Brooklyn.

Madison County.

Dr. Stillman Spooner, *Lenox*, Pres. *Censors*—Dr. Alvin Foord,
A. G. Purdy, *Eaton*, V. Pres. J. S. Douglass,
Milton Barnett, *Morrisville*, E. B. Burroughs,
Secretary and Librarian. O. Mead,
O. Mead, *Nelson*, Treasurer. Joel Norton.

Dr. E. B. Burroughs, *Lebanon*, Delegate.
Annual Meeting, July.

Montgomery County,

Dr. Morgan Snyder, *Minden*, Pres. *Censors*—Dr. Simeon Snow,
Henry Wood, Vice Pres. W. G. Comstock,
W. G. Comstock, Treasurer. Daniel Smith,
J. W. Miller, *Johnstown*, Sec. H. Wood,
D. E. Houghtaling.

Dr. Simeon Snow, *Root*, Delegate.
Annual Meeting, June.

New-York City and County.

Dr. James R. Manley, President. *Censors*—Dr. Benjamin R. Robson,
Francis U. Johnston, V. Pres. Chandler R. Gilman,
R. K. Hoffman, Corr. Sec'y. Alexander E. Hosack,
J. K. Hardenbrook, Rec. Sec'y. Nichol H. Dering,
A. J. Berry, Treasurer. Jared Lindsly.

Dr. John F. Gray, Delegate.

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Oneida County.

Dr. A. Blair, *Rome*, President.
S. Pomeroy, Vice Pres.
Daniel Thomas, *New-Hartford*, Rec. Secretary.
C. B. Ceventry, *Utica*, Cor. Sec.

Censors—Dr. W. A. Clark, B. F. Henderson, Herbert Hastings, W. Brainard, R. S. Sykes.

Dr. Thomas Goodsell, *Utica*, Delegate.

Annual Meeting, July.

Onondaga County.

Dr. G. W. Richards, *Camillus*, Pr.
Herman Van Doren, V. Pres.
P. C. Sampson, *Syracuse*, Sec.
George Hooker, Treasurer.

Censors—Dr. Nathan R. Teft, Matthew Williams, George Smith, Richard R. Smith, Hiram Hoyt.

Dr. Lake G. Tefft, Delegate.

Annual Meeting, second Tuesday in June.

Orange County.

Dr. James Heron, *Warwick*, President.
Lewis Dunning, *Goshen*, Secretary.
Dr. James M. Gardiner, *Newburgh*, Delegate.

Annual Meeting, May.

Otsego County.

Dr. Jenks S. Sprague, *Exeter*, Pres.
Henry Clark, V. Pres.
Joseph Carpenter, Secretary.
E. Curtiss, *Cooperstown*, Treas. and Librarian.

Censors—Dr. Menzo White, A. E. Metcalf, John Gray, D. R. Boyce, Erastus Curtiss.

Trustees of Library—Sumner Ely, Ariel Spafard, Alexis Smith.

Dr. Alexis Smith, *Butternuts*, Delegate.

Saratoga County.

Dr. Darius Johnson, President.
Oliver Brisbin, Vice Pres.
Josiah Pulling, Sec'y, and Treas.

Censors—Dr. Wall, Preston, Sprague, Raymond, M'Martin.

Dr. William Tibbits, Delegate.

Schoharie County.

Dr. D. H. Kibby, *Cobleskill*, Pres.
Lorenzo Hubbard, Vice Pres.
Julius Rowley, Secretary.
Darius Coye, Treasurer.

Censors—Dr. Samuel B. Wells, Peter S. Swart, Lorenzo Hubbard, C. H. Van Dyck, Julius Rowley.

Dr. Peter S. Swart, *Schoharie*, Delegate.

Annual Meeting, first Tuesday in October.

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St. Lawrence County.

Dr. J. A. Mott, *Wadington*, Pres. *Censors*—Dr. Hiram Murdock,
A. Tyler, *Ogdensburgh*, V. Pres. Caleb Pierce,
Darius Clark, *Canton*, Sec'y. William M. Bass,
William Noble, *Canton*, Treas. Louis Samborn,
John H. M'Chesney.

Dr. William S. Paddock, Delegate.

Tompkins County.

Dr. P. A. Williams, *Enfield*, Pres. *Censors*—Dr. John Stevens,
G. W. Phillips, *Ithaca*, V. Pres. William Bacon,
J. Stevens, *Ithaca*, Treasurer. George W. Phillips,
S. P. Bishop, *Ithaca*, Sec. and Lib. O. C. Comstock,
Samuel E. Clark.

Dr. Daniel D. Page, *Dryden*, Delegate.

Aanual Meeting, first Wednesday after the thirdMonday in May.

VIII. CLASSIFICATION OF COUNTIES.

We reprint this, as a County lately incorporated and two additional Medical Institutions are authorised to send Delegates to the State Medical Society.

Vacant.	Vacant.	Vacant.	Vacant.
Feb. 1, 1838.	*Feb.* 1, 1839.	*Feb.* 1, 1840.	*Feb.* 1, 1841.
Westchester,	New-York,	Greene,	Albany,
Columbia,	Orange,	Dutchess,	Oneida,
Ulster,	Delaware,	Jefferson,	Cayuga,
Madison,	Onondaga,	Ontario,	Otsego,
Herkimer,	Montgomery,	Essex,	Saratoga,
Chenango,	Rensselaer,	Lewis,	Schenectady,
Washington,	Genesee,	Schoharie,	Tioga,
Clinton,	Seneca,	Niagara,	Cattaraugus,
Suffolk,	Allegany,	Warren,	Richmond,
St. Lawrence,	Broome,	Chatauque,	Rockland,
Cortland,	Franklin,	Orleans,	Steuben,
Erie,	Livingston,	Putnam,	Sullivan,
Hamilton,	Munroe,	Queens,	Tompkins,
Kings,	Oswego,	College of P. &	Chemung,
Wayne,	Yates, 15.	S. New-York,	College of P. & S.
Med. Fac. of N. Y.		Med. Faculty of	Fairfield, 15.
City University, 16.		Geneva Coll., 15.	

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IX. *List of* COUNTIES *contained in the respective* SENATORIAL DISTRICTS *as established by the law of* 1836.

[By a resolution of the Society passed at the session of 1836, the first and second Senatorial Districts were recognized as the *Southern* District, the third and fourth as the *Eastern*, the fifth and sixth as the *Middle*, and the seventh and eighth as the *Western* District. The Censors to be chosen (three in each district) were directed to be residents in their respective Districts. The arrangement of the counties is accordingly added for the sake of convenient reference.]

1st Senatorial District.
City and County of New-York,
Richmond,
Kings,

2nd Senatorial District.
Queens,
Suffolk,
Westchester,
Rockland,
Dutchess,
Putnam,
Orange,
Sullivan,
Ulster,

3d Senatorial District.
City and County of Albany.
Delaware,
Greene,
Columbia,
Rensselaer,
Schoharie,
Schenectady,

4th Senatorial District.
Saratoga,
Montgomery,
Hamilton,
Washington,
Warren,
Clinton,
Essex,
Franklin,
St. Lawrence,
Herkimer.

5th Senatorial District.
Oneida,
Madison,
Oswego,
Lewis,
Jefferson,
Otsego.

6th Senatorial District.
Chenango,
Broome,
Tompkins,
Chemung,
Tioga,
Steuben,
Livingston,
Allegany,
Cattaraugus,

7th Senatorial District.
Wayne,
Ontario,
Yates,
Seneca,
Cayuga,
Onondaga,
Cortland.

8th Senatorial District.
Chatauque,
Erie,
Genesee,
Monroe,
Orleans,
Niagara.

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X. An Act *authorizing the Establishment of a Medical Faculty in the University of the City of New-York.*

Passed February 11, 1837.

The people of the state of New-York, represented in Senate and Assembly, do enact as follows:

§ 1. The provisions of the twenty-first section of title seven, chapter fourteen and first part of the revised statutes, shall not be deemed to apply to the diplomas conferring the degree of doctor of medicine granted by the council of the University of the City of New-York upon the recommendation of the medical faculty of the said University, established therein: but no person shall receive any such diplomas unless he shall have pursued the study of medical science for at least three years after the age of sixteen, with some physician and surgeon duly authorized by law to practice his profession, and shall also after that age, have attended two complete courses of all the lectures delivered in some incorporated medical college, the last of which courses shall have been delivered by the medical faculty of the University of the City of N. York; and all the provisions of said title seven which require an attendance upon the lectures delivered at an incorporated medical college shall be deemed to apply to and include the lectures delivered by the medical faculty of the University of the City of New-York, and the diplomas granted pursuant to this act, shall have the same force and effect as licenses to practice physic and surgery, as are given by law to the licenses granted by any incorporated medical society in this state.

§ 2. The agent of the state prison at Sing Sing shall deliver at the prison to the medical faculty of the University of the City of New-York, such dead bodies of convicts as are by law authorized to be dissected, not exceeding one half of the number of such bodies.

§ 3. Such parts of acts heretofore passed relative to such dead bodies of convicts at Sing Sing, as are repugnant to this act, are hereby repealed.

§ 4. The medical faculty of the University of the City of New-York are hereby authorised to appoint a delegate to represent them in the state medical society, with all the powers and privileges which delegates from the respective medical colleges and faculties of this state possess.

§ 5. The legislature may at any time modify, alter, or repeal this act.

State of New-York,
Secretary's Office.

This bill having been approved and signed by the Governor of this state on the 11th day of February, 1837, I do hereby certify, that the same became a law on that day.

JOHN A. DIX, Secretary of State.

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TRANSACTIONS

OF

THE MEDICAL SOCIETY

OF THE

STATE OF NEW-YORK.

VOL. IV.

1838, 1839, 1840.

ALBANY:

PRINTED BY J. MUNSELL, STATE STREET,

1840.

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TRANSACTIONS

OF THE

NEW-YORK STATE MEDICAL SOCIETY.

ART. I. ANNUAL ADDRESS *delivered before the Medical Society of the State of New-York, Feb.* 6, 1838, *by* JAMES M'NAUGHTON, M. D., *President of the Society.*

GENTLEMEN,

Agreeably to the ordinances of this Society, it becomes my duty, as its presiding officer, to address you on the present occasion.

In my discourse of last year, I attempted to give a brief sketch of the progress of medical education, and of the origin of the several medical schools of this State; to this I subjoined some suggestions, for the consideration of the Society, relative to the preliminary education of students, and the course of medical instruction to be pursued, before admitting candidates to examination for license, or the degree of Doctor of Medicine. On this latter subject, much might be usefully added, were there any prospect that the Legislature would co-operate with us in carrying our views into effect. Nothing has been done since our last meeting to amend the existing regulations of our profession, or to facilitate medical improvement. Until, therefore, the amendments which are on all hands acknowledged to be called for, are effected, I forbear entering on the discussion of topics, which, though interesting to us, would not be likely to lead to lead to any useful results, in the present state of public sentiment. I cannot,

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however, omit to press upon the Society the necessity of petitioning the legislature to sanction some of the alterations suggested in my address of last session, more particularly, those relating to the pursuit of practical anatomy. Without some further facilities for the prosecution of that fundamental branch of a medical education, our medical colleges can never attain to such a standing as will comport with the character of the Empire State.

Leaving to the wisdom of the Legislature, matters over which we have no control, permit me to call your attention to some subjects relating to the practice of our profession, which the last few years have brought into notice. It is not my intention, on the present occasion, to enumerate the several improvements, which have of late years been made in the practice of physic and surgery; for, even if I possessed the ability to do so, the limits to which I am restricted, would not permit me.

Since the days of Hippocrates, our profession has undergone numerous mutations. System after system has seen the light, and after strutting its period upon the stage, has passed into oblivion. Hippocrates, the father of medicine, was for many ages allowed to govern the practice of physic, until he was superseded by Galen. The system of Galen retained possession of the schools from the 9th to the middle of the 17th century; although early in the 17th, Paracelsus, the noted mountebank and alchemist, had, to a considerable extent, shaken his authority, by the introduction of several active remedial agents, the effects of which he explained on principles in direct opposition to those of Galen's system. Both Galen and Paracelsus agreed in the explanations given of the actions of the body in health and disease, in referring them to the agency of the fluids. Towards the middle of the 17th century, the discovery of the circulation of the blood became generally known; and that was followed by the discovery of the thoracic duct, and of the lymphatic sys-

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tem of vessels. These led to the final overthrow of the Galenic system.

In the course of the same century, Galileo introduced mathematical reasoning, and Bacon proposed the inductive method of investigation. These new modes of philosophizing doubtless had some influence on medical enquiries. The study of the circulation led to the application of mechanical philosophy to explain the phenomena of life. Mathematical reasoning long continued the favorite mode of treating medical subjects. Still, the fluids of the body, played the principal part in all these systems, whether chemical or mechanical, in accounting for the phenomena of disease, and the operation of medicines. A humoral and chemical pathology, entered largely into every system of medicine down to the beginning of the 18th century; and even to this day, prevails to a certain extent, and, perhaps justly, influences medical reasoning, and regulates medical practice.

The early part of the 18th century ushered in three new systems, differing widely in many points from each other, both in theory, and in the practice recommended. Two of these emanated from Professors in the University of Halle, in Germany, and the third from Leyden, in Holland. Stahl and Hoffman were the authors of the two first, and Boerhaave of the third. The influence of the works of Stahl and Hoffman was in a great measure confined to Germany; but that of Boerhaave's extended over the civilized world, and swayed the minds of physicians to a greater extent and for a longer period of time, than the works of any writer since the days of Galen.

Hoffman first pointed out the important influence of the *Solidum vivum*, or nervous system, in explaining the operations of the animal economy, and the effects of medicines in modifying these. He seems to have led the acute mind of Cullen to the examination of the influence

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of the solids in the production of disease, as well as in their removal. Cullen laid the foundation of the system of the *solidists*, which superseded for a time all the preceding systems, and still maintains, in a great measure, its ascendency in the schools. It is impossible to read the works of that distinguished physician without admiring the clearness of his reasoning, and the elegance of his style. Whether one is convinced of the truth of the opinions he advances or not, he cannot fail to be struck with the ingenuity and talent evinced in maintaining his positions. Every thing is well digested and well considered — so different from the crude and clumsy productions of many of those who have succeeded him. There are doubtless many weak points in his system, and many defects in the practice recommended. But these defects are attributable to the age in which he lived, and do not derogate from the transcendent merit of Dr. Cullen. An edition of his works with additions corresponding to the advanced state of medical science, would be one of the most valuable gifts to the medical profession. But where shall we find one who is worthy of the task, and capable of performing it? The attempt has often been made, but thus far with no very great success. In most instances, the simple text is a safer guide than the commentary.

The system of Stahl prevailed to a considerable extent in the German States, but not so extensively in other parts of Europe, as that of Boerhaave. The leading principle in the system of Stahl is, that the rational soul of man governs the whole economy of his body.

From the earliest period, physicians have observed, that the animal economy possessed within itself, to a certain extent, a power of warding off dangers that threatened it, and was capable of exciting certain motions or actions calculated to relieve itself from existing diseases. This kind of action was attributed to the operation of what they vaguely called "nature," and the influence of

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this agent continued to be recognized in the schools under the name of *vis conservatrix*, or *vis medicatrix naturæ*. In all systems such a power has been, and must always be, allowed; but the school of Stahl was somewhat distinguished from others in trusting to the wisdom of this organic action as a remedial agent. Confiding in this power, they thought it the duty of medicine to aid nature in her efforts, if they did not trust to her entirely. Hence they taught the method of *curing diseases by expectation;* and, when they employed medicines, only used the most inert and inefficient. They opposed the use of some of the most efficacious remedies, such as opium and bark; and very rarely had recourse to bleeding, vomiting, or any of the powerful general remedies. The followers of Stahl interfered but little with the operations of nature, by the exhibition of medicines, but they were attentive to regimen, and close observers of the phenomena of disease. Hence we are indebted to them for a more correct history of the symptoms of disease than are to be found elsewhere.* Experience, however, determined the fact, that nature, or the *vis medicatrix*, when left to herself, was even more destructive of human life, than the active interference of the physician — hence the more energetic practice recommended in the systems of Cullen and Brown, gradually superseded the method of *curing by expectation.*

The present century has witnessed the introduction of two systems, which inculcate in a great measure, the curing of diseases, by expectation, avoiding like the followers of Stahl, powerful medicines, and energetic general remedies. The founders of these systems are, Broussais, of France, and Hahnemann, of Germany. The former has many followers, particularly in France, and the latter not a few, not only in his own country, but in seve-

* Introduction to Cullen's Practice of Physic.

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ral other countries on the continent of Europe, and even in these United States.

We do not deem it necessary to make any further remarks on the views of Broussais, as they are already well known to the profession in general.

The peculiarity of the system of Hahnemann and its being almost new to the profession, and to the public, entitles it to more notice, on the score of novelty, if not on that of utility. Although this system has not attracted much attention, until within a few years, out of Germany, it has been gradually spreading in the country of its birth, since the early part of the present century.

Hahnemann, a man of science and learning, was regularly bred and educated as a physician, and seems to have been led to the discovery of the fundamental principle of his system, rather by accident, than by any process of reasoning a priori. In the year 1790 while making some experiments upon himself, with Cinchona, or Peruvian bark, Hahnemann discovered to his surprise, that it brought on a paroxysm of intermittent fever. It is fair to presume, that he satisfied himself, that this paroxysm was *caused* by the use of the bark, and was not an accidental occurrence while under its influence. This discovery made new light to break in upon the darkness which had hitherto obscured his ideas of therapeutics; and proved, in his judgment at least, the dawn of the brightest day that has ever opened upon medical science. He regards his discovery as among the few that have immortalized their authors, and to be placed in point of importance, side by side, with those of Copernicus, Sir Isaac Newton, and Harvey. The work in which he gives an exposition of the principles of his system, is denominated the *Organon of the Art of Healing*, in imitation of the title adopted by the great author of the Inductive Philosophy.

His system is founded on the strictest principles of induction — observation and experiment; and if his facts

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are correct, some of his conclusions cannot be controverted. But here lies the difficulty; and it was well and wisely said, long ago, by Dr. Cullen, that there were more false facts, than theories, in physic.

Having found out that bark possessed the property of causing intermittent fever when given to a person in health, he was induced to extend his experiments to other medicines, to ascertain their effects on persons in health, and found, that, when given in large doses, they invariably produced symptoms *analogous* to the symptoms of the diseases which they were known to cure:—For example, that sulphur produced a sort of itch, and that mercury produced symptoms resembling syphilis. From these observations, he deduced the fundamental principle, which characterizes his system—namely—that medicines are useful in curing diseases, only in so far as they possess the property of producing in persons in health symptoms analogous to those of the disease for which they are administered; and that that medicine is the most efficacious remedy, the collective symptoms caused by which in a person in health, bear the strongest resemblance, to the collective symptoms of the disease for which it is exhibited. Agreeably to these principles diarrhœas are best cured by medicines of a purgative nature, vomiting, by emetic remedies, and costiveness by opium and astringents.

The name by which this system is distinguished from others is that of Homœopathy, derived from two Greek words, (ομοιου παθος) meaning analogous suffering. The followers of this system designate that followed by the generality of medical practioners by the name of Allepathy, (αλλου παθος) different suffering, as they sometimes use medicines which produce effects analogous to the disease, as purgatives in diarrhœa; or contrary to them, like cold to burns, or blisters to local inflammation; or antipathic, like giving an acid to correct an alkali, or the contrary.

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The Homœopathic practitioners adopt as an axiom, the maxim, *Similia similibus curantur* — the sense of which may be expressed by saying, that the same symptoms which medicines produce in a state of health, are those which they are capable of removing, when they spontaneously occur in disease. Hahnemann adduces a great number of instances, from the practice of physicians, in different ages, of cures effected upon the principles of his system; but observes, that, notwithstanding the obvious results, and their discordance with the principles of the systems these several physicians believed in, none of them were led to the discovery — the true key, to open the secrets of therapeutic medicine.

In a few instances, indeed, physicians had adopted the method of treating diseases by remedies producing symptoms analogous to those of the existing disease, and some suggested the probability of such being the true method in the generality of cases. He quotes Stahl, of Denmark, as one of those, and it must be confessed, that the Organon itself, does not more distinctly or clearly express the Homœopathic principles, than that quotation. The following is a translation of the passage referred to: "The rule adopted in medicine of treating diseases by remedies which produce effects contrary to those of the disease (*contraria contraiis*) is entirely false and absurd. I am persuaded on the contrary, that diseases yield to remedies which produce an analogous affection (*similia similibus*) — burns are cured by keeping the parts affected before the fire — frostbite by applying snow or cold water — inflammations and contusions by spirituous lotions. It is in this manner I have succeeded in correcting a tendency to acidity by very small doses of sulphuric acid, in cases in which a multitude of absorbents had been exhibited to no advantage."

"Thus," says Hahnemann, "the great truth has more than once been approached. But they have never had

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more than a passing glance, and in this manner the indispensable reform which therapeutics ought to undergo, to give place to the true art of healing,—a system of medicine, pure and certain, has never been found until now."

Hahnemann frankly acknowledges that he is not entitled to the credit of originality in discovering his great therapeutic principle; but considers himself entitled to the whole merit of having established the applicability of it, to the greater part of the diseases to which mankind are subject. Whatever may be thought of the system itself, no one can deny the patience and perseverance with which Hahnemann has pursued the investigation of the effects of medicines upon himself and others, in a state of health, for more than forty years, and the zeal with which he has watched their influence in the removal of disease. Several of his followers have been no less diligent, and are scarcely considered second to him in upholding the system of which he is the acknowledged founder.

It will be perceived that the fundamental principle of the Homœopathic system is not new in the practice of medicine. It has been the opinion of many eminent physicians that nature, or the *vis medicatrix naturæ*, when the system was threatened with injury, caused certain actions calculated to ward off danger, or remove the offending cause, and that it was their duty to aid nature in her efforts. Hence when there was diarrhœa, it was promoted by laxatives, and if there occurred spontaneous vomiting, it was encouraged by drinking tepid water, or by the exhibition of an emetic. These were considered anxiliary to the efforts of nature, and were generally found salutary, when given with proper discretion. There were other cases, however, in which nature was found to be proceeding rather too fast, and required a check; as when the reaction caused a severe inflammation of the lungs or bowels. In those cases, no fuel was needed to increase the flame, and nature, if left to herself, in her

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efforts to throw off the disease, would succeed in doing so only by killing the patient. Hence it was deemed proper to moderate this reaction by various means. When the action of the heart was too great, it was lessened by bleeding — when the heat was excessive it was lowered by cooling means — and when inflammation was great in an organ essential to life, an attempt was made to create a diversion to another part less important, by applying blisters and sometimes red hot irons, on the established principle, that the greater pain swallows up, or renders less perceptible, the smaller. In other cases some acrid substances were swallowed, and acted as poisons. For some of these there existed antidotes, and these were given, as for example, an acid to neutralize an acrid alkali. When no antidote was known, it was deemed prudent to throw off the contents of the stomach, by exhibiting an emetic, on the principle of removing the offending cause.

In these several instances, physicians have been guided according to circumstances, in the selection of remedial agents, sometimes using remedies which produced symptoms analogous to the disease — sometimes those which produced contrary symptoms, and sometimes using remedies which acted as antidotes; — and reason and common sense would seem to sanction the propriety and wisdom of such a procedure. The peculiarity of the Homœopathic system is, that it applies the principle of *similia similibus* to a much more extensive class of cases than is usual with the followers of other systems; and that it has recourse to doses so very small as to have received the designation of *infinitesimal*, from their excessive minuteness. It is also somewhat distinguished from other systems by the regimen prescribed while under treatment. A few observations on the mode of preparing medicines, and on the diet reccommended, will, I trust, prove not uninteresting to the Society.

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After Hahnemann had ascertained the symptoms produced by taking medicines in a state of health, in full doses, he began to try their effects in the removal of diseases, agreeably to the principles of his system. He began, like ordinary practitioners, by giving large doses; but found, that though they removed the diseases, they produced an unnecessary aggravation of the symptoms, and consequently prolonged the sufferings of the patient. He gradually diminished the doses, until he reached the last point at which the medicine retained its power over the disease. In this manner, he ascertained the degree of dilution in which the medicine should be given to be at the same time prompt, efficacious, and mild. When the medicine was perfectly Homœopathic to the disease, that is, when it was such as would produce in health, all the symptoms of the disease and cover them, as one triangle of equal sides, and equal angles covers another triangle, he found that it removed the disease with the slightest possible aggravation of the symptoms, which in a short time disappeared with those artificially produced by the medicine. The Homœopathic system differs from others in using only one medicine at a time, eschewing religiously all kinds of mixtures and combinations, such as constitute the prescriptions of what he calls "the vulgar practitioners." In his investigations concerning the minutest possible doses which could be relied upon, he found it necessary to reduce them so excessively, that he began to suspect, that the mode he had adopted of rubbing them intimately with the medium in which they were administered, somehow added to their medicinal properties, until at length the conviction was forced upon his mind, that he had stumbled upon a discovery, even more important and unexpected, than that of the grand axiom of *similia similibus*. And that was, that friction, and shaking imparted to medicines, which in their crude state possessed little or no virtue or activity, a degree of en-

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ergy in influencing the vital movements, resembling the operation of a virus, more than than that of an ordinary remedy.

He adduces as evidence of the surprising influence of friction on bodies, the familiar facts of striking fire from a flint, and the heat produced by rubbing metals. Even savages know that fire may be kindled by rubbing against each other, two dry sticks. "Will the man," he says, "who seizes his steel to light his pipe believe, that that cold body contains within itself a magazine of heat, which only requires friction to disengage it? He will not: and yet, the fact is so. Count Rumford has shown us that a room can be heated, by rapidly rubbing two plates of metal against each other, without the necessity of having recourse to any of the ordinary means of keeping up a fire."

"Friction produces," he further observes, "an influence so powerful that it developes not only, the physical properties of bodies, as heat, odour, &c., but still more, a fact unknown until now, it exalts to an astonishing degree the medicinal powers of substances. It appears that it was reserved for me, to discover this property, the influence of which is such, that by virtue of it, substances which were never known to possess medicinal properties, acquire a surprising energy. Thus, gold, silver, and wood charcoal, are without action upon man in their ordinary state. The most delicate person could take several grains of gold or silver foil, or charcoal, without the least medicinal effect. From the constant rubbing for an hour of one grain of gold with one hundred grains of powdered sugar of milk, there results a preparation already possessed of considerable medicinal virtue. But, take a grain of that preparation, rub it for another hour, with a hundred grains of sugar of milk, and continue the same process until each grain of the last preparation shall contain only the *quadrillionth part of a grain of gold*, you will then possess a preparation in which the medi-

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cinal virtue of the gold will be so developed, that it will be sufficient to put one grain of it into a phial, and to cause a melancholy person whose disgust of life has brought him to the verge of suicide, to breathe it for a few seconds, when in one hour, the wretched being will be relieved from the wicked demon, and restored to a relish of life!* Such are the effects of rubbing, "that it is necessary to be careful not to exalt the virtues of medicines too much by such means. One drop of drosera diluted thirty times, each of which dilutions has been shaken twenty times, put in jeopardy the life of an infant, to whom it was given; while the same medicine, when each dilution has received only two shakes, given in a quantity just sufficient to moisten a globule of sugar, of the size of a grain of millet, will cure the disease easily and promptly!" These extracts sufficiently show the wonderful influence of thirty hours rubbing upon gold, and that of twenty shakes, on each dilution of drosera!!

Let us now come to the dietetics of the system, the most rational, and perhaps the most valuable, part of it. It by no means resembles that of the renowned Dr. Sangrado, or that of his no less celebrated successor Broussais. It allows of plain, substantial fare, such as would suit any reasonable honest man, or woman, who wished to live, as revelation informs us mankind were destined to live — by the sweat of the brow. Good beef and mutton, if sufficiently old, domestic fowls, venison and other game, fish, and plain bread, are allowed in moderation: but no spices, no wine, no spirits, no infusions of substances possessing medicinal properties, whether fermented or unfermented. No onions, garlic or celery are permitted: tea† and coffee are forbidden. The gentlemen

* Organon De L'Art de Guerir par S. Hahnemann, &c. &c. par A. J. L. Jourdan, Paris, 1832, p. 338.

† On this side of the Atlantic, Homœopathists have so far conformed to custom as to allow patients to drink *black tea*.

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must forsake their snuff and cigars, and the ladies their scented soaps, their honey waters, their musk cosmetics, their otto of roses, and their pure cologne. All these are too powerful to give fair play to the wonderful virtues of the almost immaterial medicines of the Homœopathic school. Exercise in the open air, cheerfulness of mind, and a rigid subjection of the turbulent passions, are seduously enjoined.

No one can deny that there is good sense and propriety in most of these injunctions, and as the course is not to be rigidly followed except while under the influence of the medicines, no great harm can, in any case, result from strictly following them. The precise course of regimen to be pursued in each case is to be modified according to circumstances. In no instance, however, is the starving system pursued by the disciples of Homœopathy, to the same degree as is sometimes done, by the practitioners of the school of Broussais.

The mode of proceeding when called to the examination of a case of disease, is to make a minute examination of all the symptoms. The patient is closely questioned; every symptom, whether internal or external, whether affecting the mind or the body, is noted. It is also necessary to know whether the uneasy feeling, or the morbid symptom, which seems most entitled to consideration, occurs in the morning or in the afternoon, in the evening, or on going to bed — whether it be more troublesome before eating, than after eating — whether more when walking than when at rest — whether worse sitting than standing, or on lying down — and a thousand other minutiæ, which time would not permit me to enumerate.

After having thus made out a catalogue of all the symptoms, then comes the research after the most suitable remedy. If the search has been successful, and a medicine is found, under the head of which, all the symptoms of the

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disease are enumerated among its characteristic effects, the true specific is found. When given in a suitable dose, the medicine produces an aggravation, for a short time, of all the symptoms, upon the subsidence of which, the disease disappears.

How the aggravation of a disease is to cure it, may be somewhat difficult to account for; and in any other system such an occurrence would be considered an evidence that the remedy was not well chosen; but it is the regular effect expected and wished for in this mode of practice. It may be, that the aggravation of the symptoms, is not the direct effect of the medicines, but an organic riot, to nullify or expel the infinitesimal intruder — or it may be, that a regular battle takes place between the disease and medicine, in which, at first, the disease seems to have the mastery, but that at last the medicine quietly conquers — or it may be, that, like the Kilkenny cats, the one eats up the other, not leaving, as in that celebrated combat, even a tail as a memorial of the struggle. If no medicine exist, to cover all the symptoms of the disease, recourse is had to the one that covers those which seem characteristic; and when these are killed off, another medicine is given to finish the residue. The first medicine must have completed its functions before another is given.

In acute diseases the remedies are not exhibited in general more than once or twice in twenty-four hours, the interval depending upon the duration of their respective effects. In chronic diseases, again, they are not given oftener than once a week, fortnight or month — sometimes only once in two months. The millionth or ten-millionth part of a grain, once in two months, and that given in sugar, is certainly a very gentle mode of treating a disease; and if experience should prove it to be as successful as the Allopathic method, it is certainly entitled to the preference. One would suppose that such small doses

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could not exert any influence on the vital actions. The most virulent poisons known to us can be taken in doses a hundred times larger than the doses of the Homœopathic medicines, with impunity. Making, therefore, all due allowances for the influence of friction in imparting new properties, nothing short of the most unquestionable experience could induce us to believe, that the remedies of the new school would do either harm or good.

The fundamental principle of curing diseases by remedies which aggravate for a time the symptoms, is not calculated to make a favorable impression on physicians brought up in the Allopathic schools, even if the doses of the appropriate remedies seemed sufficiently large to produce some decided impression on the system. But the principle of action, and the infinitesimal size of the doses prescribed, have together contributed to prevent physicians from paying any attention to the new science. Generally speaking, they have at once pronounced the whole subject absurd — a delusion — or a gross imposition upon public credulity. Now, is this the proper mode of treating it? Is it philosophical to call any thing absurd, professing to be founded on observation and experiment? If it be false, it should be proved to be so, by showing that facts do not warrant the premises, or the deductions drawn from them. Is it true that medicines, which are known to act as specifics in the cure of diseases, produce, when given in large doses to persons in health, symptoms resembling the diseases which they cure? Will quinine in large doses cause a fit of intermittent fever? Will sulphur bring out a crop of the itch? What is the experience of the profession on the subject? Granting that large doses of quinine cause something like a chill, will not any medicine, or any food that disorders the digestion do the same? Granting that sulphur in large doses brings out an eruption on the skin, does not eating clams and other shell fish often do the same? Will the eating of these

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cure the itch? We have often seen quinine given in large doses for weeks together, but have never seen any thing like a paroxysm of intermittent fever caused by it. We have also seen sulphur used somewhat liberally, but though we have known it to cure the itch, we have never seen it to cause it. True, these were not given to persons in health. But such persons are rather scarce, and when found, are not fond of being made the subjects of experiments so repulsive. Several of them, however, were so nearly in health, that the medicines might be expected to produce their characteristic effects.

But the greatest objection to the reception of the doctrines of the Homœopathic school has arisen from the infinitesimal doses. Few have been found willing to believe, that such small doses could have any influence whatever on the animal economy. It is not to be wondered at, that persons accustomed to give twenty or thirty grains of a medicine, not only without injury, but often to the great benefit of their patients, cannot believe, that the millionth part of a grain of the same substances should produce such wonderful effects as are attributed to them. But then, such people do not know the great influence of friction in imparting new energy to medicines which in their crude state are almost inert. The fact seems improbable — but it may nevertheless be true. It is therefore the duty of physicians to ascertain whether it be true or false.

> There are more things in heaven and earth —
> Than are dreamt of in *our* philosophy.

Who would believe that the insertion of the point of a lancet into the skin, armed with an infinitesimal dose of vaccine virus, could prevent, and that forever, such a formidable disease as the small-pox? Yet such is the fact. Who could believe that by rubbing a plate of glass, a man could be made to give out sparks of fire, at every

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point of his body where one could touch him, and yet be unconscious all the time that he was getting charged with such strange fire? Could either philosopher or fool be made to believe such a thing without witnessing the proof? Electricity, galvanism, and electro-magnetism, make us acquainted with facts which at first appear less probable than the effects of the Homœopathic medicines. Most philosophers are believers in the infinite divisibility of matter. We sometimes see reagents detect so small a quantity as one grain of some salts in a larger quantity of water than all the circulating fluids of the body. It is then possible, that the infinitesimal doses may be carried to the extremities of the minutest arterial branches, where the molecular movements take place, and may cause a change or modification of the vital actions, incompatible with the vital movements which constitute the disease. It is possible that the Homœopathic reasoning may be erroneous—it is possible that the medicines may act as specifics, like the vaccine virus, and that the mode of action may be altogether inexplicable, in the present state of our knowledge. We are therefore more interested in determining the correctness of the alleged facts, than that of the theory offered to explain them. Many of these facts are of such a kind as admit of easy examination—and can be readily proved or refuted. It will not be amiss to state a few by way of illustration.

1st. It is said that belladonna is as infallible a preventive of scarlet fever, as the cow-pock is of small-pox: but the duration of its action is only two months.

2nd. That drosera is a specific in whooping-cough.

3d. That inhaling the odour of gold cures melancholy when so severe, as to bring the sufferer to the verge of suicide—and in the short space of one hour.

4th. That aconite will cure in twenty-four hours the severest inflammatory fever, or the severest inflammation of the lungs—without bleeding or any evacuant what-

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soever. In all the above cases, the medicines must be given in the doses, and prepared in the manner directed in the Homœopathic system.

Permit me to cite a single case from the work of Dr. Gueyrard, a French Homœopath, illustrative of the energy of the practice:—"An actress, aged forty years, strong, yellow, and plethoric, troubled for eight years with chronic inflammation of the tonsils and pharynx, which had resisted all kinds of Allopathic remedies and for which removal by operation was proposed, consulted a Homœopathic practitioner on the 1st of August, 1832, and took in the morning of that day a dose of belladonna of the thirty-first dilution. The patient anticipating no disturbance from it, experienced no exacerbation until night, but then most violently. The disease increasd rapidly to an acute state, menacing suffocation, with difficulty of swallowing, salivation, fever, and sharp shooting pains through the tonsils. Frightened, she sent for the Doctor, who could not come until morning. When he called she received him smiling, and announced to him her cure. Scarcely could one on examining the mouth discover any redness or any vestige of the enlargement of the tonsils."*

Here is certainly a strongly marked case. There was not only a sudden increase of action in a part long the seat of chronic inflammation, but an equally sudden subsidence of inflammation; followed by the removal of a chronic enlargement, without any suppuration.

Having heard reports of numerous cures effected at home and abroad by the Homœopathic medicines, my attention was drawn to the study of the system about two years ago, and I was induced to make trial of it in a few cases, in which its efficacy was most extolled.

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* La Doctrine Medicale Homœopathique examiné sous les rapports Theorique et Pratique — Par Le Docteur H. C. Gueyrard, &c., Paris, 1834, p. 141.

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In some instances I thought that it answered remarkably well, but in others its effects so entirely disappointed me, that I abandoned it for remedies of more activity, with the effects of which I was better acquainted. The medicines were given in cases in which the delay of a few days would not be injurious to the patient even if the remedies should fail. They were given in the sugar of milk, in the doses directed, and from a medicine case prepared by a Homœopathic apothecary. That the imagination of the patient might not play any part in the matter, no intimation was given that any novel course of practice was pursued.

I have not deemed it proper to trust these medicines in any severe cases of fever or inflammation of the lungs, and therefore cannot say what might have happened, if I had more faith and patience. I have now and then prescribed them in less urgent complaints at the request of patients; but the result has not been such as to give me any great respect for the system, or any desire to abandon the old practice, without some further proof of the superior efficacy of the new. Did my limits permit, I could give several cases to illustrate the great difficulty of deciding upon the effects of remedies, and the great liability to error in making deductions from medical experiments. In some cases, after prescribing the Homœopathic remedies, I have been struck with the rapid recovery of my patients, while in other cases in which I administered the sugar of milk alone, and put the patients on a suitable regimen, recoveries as striking took place. It is, therefore, only by the most patient and careful observations, made on a large scale, in some public institution, for a considerable length of time; and by sedulously guarding against drawing conclusions which are not warranted by repeated experiments, the fallacy of which cannot be called in question, that the value of this, or of any other system of medical practice, can be es-

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tablished. We still want such proof of the efficacy of the Homœopathic practice in the removal of diseases. Such a trial has been made in some European hospitals, but the Homœopathists complain, perhaps justly, that the institutions were under the management of those who were unfriendly to their system, and who, in various ways thwarted the success of their experiments. In other instances, in which diseases were treated upon Homœopathic principles, the medicines were prepared by Allopathic practitioners, and were neither prepared in the proper manner, given in the proper doses, nor exhibited with a sufficient knowledge of the principles of the new method. Whether Homœopathy be true or false, it is entitled to have its claims fairly investigated. The object of the profession is to ascertain the truth; and if it should turn out that in any disease the Homœopathic remedies are more efficacious than those known to the ordinary system, they ought unquestionably to be used. It will not do for the members of the profession to wrap themselves up in their dignity, and to call the new system absurd, without further enquiry. The history of the profession presents many lamentable instances of the obstinacy with which errors have been clung to, and improvements resisted. Harvey was persecuted by the College of Physicians of London for maintaining the doctrine of the circulation of the blood, and Jenner was laughed at for proposing vaccination as a preventive of small-pox. Numerous other instances could be adduced, from the history of medicine, and other sciences, of similar obstinacy in adhering to error and in resisting truth.

As this Society was instituted for the purpose of improving medical science, I would respectfully suggest the propriety of making the comparative merits of Allopathy and Homœopathy the subject of a prize dissertation. The experiments should be made in some hospital, under their respective professors, with all the advantages

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to each necessary for a fair trial; and an accurate record of the cases should be kept, acknowledged by impartial judges to be correct, that others could form an opinion for themselves of the propriety of the conclusions deduced from the results of the cases.

But while I am indisposed to pronounce judgment too hastily upon the Homœopathic system, I have no hesitation in condemning the charlatanism practised in its name. From the founder of the system to the lowest of his followers, it is the fashion to vilify and caricature the older systems of practice. This feeling extends to the believers in the new system as well as to its practitioners. While perfectly ignorant of the principles of both, and without even taking the trouble of enquiring into the facts upon which either system is founded, we find them going about as zealous missionaries, recommending the new method, and unhesitatingly condemning the old. We have seen much of this; and it is deeply to be regretted, that some of the clergy, have been among the most conspicuous, in this officious zeal. These would consult the interest of their order, by attending to the duties of their sacred calling, and leaving the mysteries of physic, to those who make them their study: in all friendliness, we would bring to their recollection the adage —

Ne sutor ultra crepidam.

We deny that sufficient evidence has been adduced either in Europe or in this country to prove that the efficacy of the Homœopathic practice is superior, or at all equal, to that of the ordinary system. Do we deny that remarkable cures have taken place under this mode of treatment? By no means: but we deny that these have been more frequent, more striking, or more prompt, than under the ordinary methods. But some will tell us, that cures have been effected under the new method, which

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had not been effected, after a fair trial of the old. We grant the fact. The same may be said, in numberless instances, where the old and the new methods have been alike unsuccessful, and where time and nature effected cures. The like remark may with truth be made in respect to almost every quack nostrum which has ever been brought forward — namely, that persons given up by the faculty, have recovered while using it. But there is much difference between a *recovery* and a *cure*. I know of no disease acknowledged to be incurable by the regular faculty that has been rendered curable by Homœopathic means.

The first thing that gave any currency to Homœopathy in this city, was a pretended case of this kind. A gentleman affected with *fungus hæmatodes*, for the removal of which, amputation was recommended by several eminent surgeons, was universally reported to be on the point of being cured by the new practice. The fame of this wonderful cure was blazoned abroad, before the case was a fortnight under treatment. Nobody doubted the fact, except the few who knew the intractable nature of the disease. And what was the result? Just what might have been expected — the limb had to be amputated. In many other cases, exaggeration, and in others downright misrepresentation, were had recourse to, to elevate the new practice and to depress the old. But time, which brings all things to their proper level, has had the usual effect in the present case, and the truth has gradually found its way to enlighten the public mind.

No medical man will deny that great changes in the state of general health will take place by a change of diet. Abstaining from wine, spirits, spices, tea and coffee and taking regular exercise in the open air, will remove many of the most obstinate and most troublesome diseases that "flesh is heir to;" but the regulation of diet

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is what the Homœopathic system has no exclusive claim to.

Imagination will cure other diseases — the mental stimulus of hope is one of the best of medicines, and if it can be exhibited in a globule of Homœopathic sugar, the latter will effect wonders. Does any one doubt the powerful effect of the mind upon the ailments of the body? No one will deny the reality of suffering in toothache, yet how often do we see it suddenly cease at the sight of the surgeon's instrument. No one will deny the severity of childbed suffering; but there is nothing more common than to witness the cessation of labor pains for hours on the arrival of the physician.

When Mesmer first came to Paris, cures innumerable were effected by animal magnetism, so much so that the medical faculty took the alarm, and applied to the government to appoint a commission to investigate its true value. — Our illustrious Franklin was one of that commission. — They decided that animal magnetism was nothing in itself, and that the cures were the effects of the imagination on the body. From that moment animal magnetism sunk as rapidly as it arose. No more wonders were effected by it, until recently, when, like a mental epidemic, it threatens us with another visitation. We have all heard of the great cures effected by Perkins' metallic tractors, when first introduced; but from the time that Haygarth showed that similar effects were produced by tractors of wood or bone, painted like the metallic instrument, the tractors lost their virtue. Need I adduce in addition to these, the powers of charms and incantations in curing and preventing diseases, to convince the most sceptical of the influence of the mind on the ailments of the body? While, then, we acknowledge the powerful influence of the mind upon diseases, and the value of securing the confidence of our patients, and the importance of sustaining their hopes, let us be

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careful that we do not confound effects purely mental, with the inherent properties of medicines — the power they possess over the vital actions, alike without the aid or the opposition of the mind.

Even if Homœopathy were superior in some diseases to Allopathy, it is by no means sufficient to furnish of itself all the remedies necessary to treat the several diseases to which mankind are subject. It is only in cases in which there is reaction, that it can be applied; for its medicines only profess to aggravate for a time the existing symptoms. Now, there are cases in which there is no reaction — others in which there is a total want of action — as in fainting.

Hahnemann in his examination of the different principles by which ordinary physicians are guided, condemns them for imitating the precepts of nature, calling her a blind goddess, without reason or judgment — in short, little better than an old fool. But in giving medicines which produce symptoms analogous to those of the disease, and which increase the existing morbid symptoms, what does his own system suggest, but an imitation of this same blind goddess?

Again, in the numerous class of cases in which poisons are swallowed, or in which acrid substances are taken, the continuance of which in the system, would either be very detrimental, or even fatal, what is the Homœopathist to do? If one has taken a large quantity of arsenic, is he to give him infinitesimal doses of some medicine, which produces analogous symptoms? If one has been bitten by a mad dog, will he do nothing but trust to some remedy that produces analogous symptoms — or give him "a hair of the dog that bit him?"*

* Homœopathy has several remedies for hydrophobia, probably as efficacious as the scores of specifics that have, in different ages, been extolled in that disease.

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In these and several other cases, Homœopathy is confessedly insufficient. This, even Hahnemann acknowledges. Is not this, then, virtually acknowledging that there is more than one principle of action necessary in the treatment of diseases? It is further acknowledged in the fact, that almost every one of nearly three hundred specifics discovered by Homœopathy, has an antidote which is to be given in case the medicine is ill chosen, or produces violent symptoms. What are these violent symptoms but a disease artificially produced? If then these antidotes calm the morbid symptoms, is the fact not an acknowledgement, that there are other modes of curing or relieving diseases besides those which produce analogous symptoms? Several of the most intelligent disciples of Hahnemann, as Hartmann, Rummel, and Gueyrard recommend Allopathic or antipathic remedies where Homœopathic are inapplicable or insufficient. I have myself seen several instances in which much injury resulted from trusting exclusively to Homœopathic remedies. In one instance I have seen the sight of an eye almost entirely lost, with a deep ulcer on the cornea, while the Homœopathist paid no attention to the local affection, but for weeks continued to give internal remedies, to get at what he considered the root of the evil. But the eradication of the evil would have come rather too late, if the humors of the eye were in the meantime allowed to escape.*

If Homœopathy be true, it may be denominated a "system of physic made easy to the meanest capacity;" for be it known that there are little books called repertories, like pocket dictionaries, in which a remedy is found for almost all human ills. For example, if one has a head-ache, let him look up that word, and under it he

* This is not the only instance either in physic or surgery in which I have witnessed the mischief done by allowing diseases to take their course, while attacking an imaginary cause.

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will find the remedy adapted to it, whether it affect the forehead or the temple, the top of the head or the back, whether it occur in the daytime or in the night, before eating or after, &c.

The disconsolate swain can find a remedy for the torments of jealousy, the love-sick maiden for unrequited affection, and the bashful, blushing youth a cure for diffidence. It is not to be wondered at, that such a system should commend itself to the favorable regard of the ladies, and it is still more natural, that the Homœopathists, or, as they denominate them, the Sugar Doctors, should be decided favorites with children. A system patronized by two such powerful interests, must not be despised or treated with contempt. We have endeavored to give a fair and candid exposition of the principles of the system, without favor or prejudice. As a chapter in the history of our eventful profession, it deserves to be studied.

Since our last meeting the Society has to deplore the loss of three of its honorary Members: — Dr. Eli Todd, of Connecticut, Dr. Alfred T. Magill, of the University of Virginia, and Philip Syng Physick, of the University of Pennsylvania, all of them men of the highest distinction in the profession. Dr. Physick was the last surviving pupil of the immortal John Hunter, and a fit representative of so distinguished a master. The Society will of course pay such tribute of respect to the memories of these distinguished men as is due to their high moral and professional characters.

In conclusion, permit me, before retiring from the honorable office of presiding over your deliberations, to return you my most cordial thanks for the indulgence, with which you have always been pleased to regard my imperfect efforts to discharge the duties imposed upon me as your President.

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NOTE.

In the foregoing discourse, I have endeavored to give a fair exposition of the Homœopathic system, and have adverted to some of the objections made to it, by physicians of other schools. I have also endeavored to show, that, notwithstanding these objections, it was still *possible*, that there might be some truth in the system, and that it was a proper subject for philosophical enquiry, and therefore only to be determined by careful observation, and cautious experiments. I have deemed it my duty to call the attention of the profession to it, not because I entertain any high opinion of it myself, but rather for the purpose of aiding in divesting it of the mystery, which quacks and pretenders have thrown around it.

The system may be practised by persons totally ignorant of the structure and functions of the human body, as well as the history and characteristic symptoms of diseases, as known in popular language, or in the nosological systems of the profession.

Homœopathy professes to know nothing of—

> all feverous kinds,
> Convulsions, epilepsies, fierce catarrhs—

but of the component parts, or detached symptoms of which all diseases are made up. Possessed of one of the numerous *Repertoriums* or *Vade-Mecums*, and a case of Homœopathic medicine, there is nothing to prevent a Jew pedler, or a discharged *Valet de Chambre*, if possessed of (what is seldom wanting) a good share of modest assurance, from passing himself off as a distinguished professor of the new science. It is more than probable that the system is destined, for a while, to make some progress; it is therefore the duty of physicians, to make themselves acquainted with it, if for no other purpose, than to expose the impositions, practised in its name, upon a credulous community. Some flagrant instances we could name, but for the present forbear. In medicine, it unfortunately happens, that the ignorant, and the learned, the great vulgar, and the little vulgar, are equally prone to become the dupes of the most contemptible quacks.

I have been recently favored with a copy of a precious specimen of quackery, entitled 'The Homœopathist, or Domestic Physician.' I believe it to be substantially, if not literally, a translation from the German. It deals in the usual phraseology of empirics, in condemning mercury; and speaks of opium, emetics, cathartics, &c. as poisons, to be religiously avoided. We are gravely told that 'Homœopathic medicine is so prepared that it will help, when it is the right one, but it will not injure, should a mistake occur.' This is certainly a comfort to those

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who take, as well as to those who give, the medicines; but does not accord with what is stated by other writers, or with some of the cases stated in the text.

The 'Domestic Physician' further says: — 'Let every remedy operate for the time indicated in the book, (the book refers to a medicine case containing 47 little phials marked No. 1, 2, 3, 4, &c. to 47) and should it afford some relief, give nothing, or, if the patient does not, or only slightly improve, give at most one (globule) of No. 30 diluted in a spoonful of water every day, *or every hour*, before you proceed to another remedy. In this manner you can never do harm.' The medicine will, most assuredly, do no harm, whatever the delay may. Having been favored, as one of the initiated, with a key to the names of the medicines contained in this mysterious chest, I had the curiosity to look up the name of this medicine, which might be taken once a day, or twenty-four times a day; and found it to be "*globulus sacchari*" — a globule of sugar! of the size of a small pin-head.

In another place, treating of cases of poisons or acrids requiring removal of the contents of the stomach, with characteristic dread of the ordinary emetics, he directs to 'chew some bread, and mix it with half a table spoonful of snuff (!) put this on his tongue till it excites vomiting, and *let him drink tepid water upon it.*' If that will not do, he advises as a substitute, 'finely powdered mustard seed mixed with a tea spoonful of kitchen salt, in a tumbler full of water, to be drank off at once.' These may be pleasant prescriptions in Germany, but on this side of the Atlantic, except where no choice is left, a regular Allopathic emetic would be preferred. If the above remedies should all fail, further directions are given, which the curious can find in page 101 of the 'Homœopathist.' The mere reading of it, if the patient have any sensibility or delicacy left, ought to act as an emetic.

On the continent of Europe, we are informed, that in several Veterinary schools, the Homœopathic system has had a most happy effect ('*une heureuse application,*') in the diseases of *horses*, and we have no doubt it is equally valuable in the diseases of *asses*.

In conclusion, without believing a tenth part of the lofty pretensions of Homœopathy, we cannot altogether deny its merits as a system of medicine. If it be quackery, and if the medicines are altogether useless when given only in the doses recommended, so far as the medicines are concerned, it is harmless quackery. There is reason to believe, however, that many of the professed followers of the system, are in the habit of using the medicines of the ordinary physicians, where they can do so without detection. With some of the most powerful remedies, it is easy to deceive patients, as many of them are now prepared in such a manner as to be easily disguised in the sugar of milk, which constitutes the vehicle of the Homœopathic medicines.

If diseases can be removed by mere regimen, and the influence of

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imagination, with safety to the patient, it is better and pleasanter to do so, than to disturb the system by powerful remedies. In the regular profession, there are two kinds of practitioners: those who trust to nature chiefly, and cure diseases *by expectation*, and those who dislodge diseases by storm. The community will gain something, if the latter should study Homœopathy, and the former understand the principles of Allopathy, more correctly. The two extremes are almost equally to be avoided; for a severe disease, unchecked, is more dangerous, in general, than the harsh practice, of a too energetic physician. In this, as in many other cases, the safest way is in the middle, between the two extremes.

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II.—*Observations on* Prolapsus Uteri, *with reference to the Modus Operandi of Dr. Hull's "Utero Abdominal Supporter." By* John F. Gray, M. D., *Delegate from the County of New-York.*

Down to the time of the invention of the Apparatus of the late Dr. A. G. Hull, for the cure of prolapsus of the uterus by external pressure, in 1832, the universally received opinion respecting the mechanical cause of that malady was, that it was relaxation of the parts called in descriptive anatomy, *uterine ligaments.*

It is suprising that this opinion should have continued to sway the minds and practice of the medical profession for so long a period of time, during which, and especially within the last century, the science of anatomy, and consequently surgery, have undergone such striking and brilliant changes.

Our surprise is by no means diminished by the consideration that the very latest and most eminent writers upon diseases of females, after either plainly or indirectly admitting that the uterus is not held *in situ* by means of its so called ligaments, as is abundantly demonstrated by all modern anatomical researches connected with the subject, have in every instance failed to apply the natural and essentially just inference from this admission, to the etiology and mechanical cure of prolapsus uteri. Vide J. Burns, Davis, Sir Charles Clarke, Dewees, S. Cooper, M. Gardien, Mad. Boivin, and others who have written on this subject within the past twenty years. Prof. James Hamilton of Edinburgh is an exception to this charge; *but he wrote his observations on this subject in* 1836, *four years after Dr. Hull commenced his invention, and two years after its publication*

If we follow the safe method of testing pathology by

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anatomical axioms, and of correcting it as fast as anatomy advances, there certainly can be no material error, as far at least as mechanical causes and merely mechanical expedients are concerned. This should be done by the profession in regard to prolapsus of the womb, and it is a matter of reproach that sound and efficient deviations from the immemorial and unsatisfactory use of pessaries were not sooner adopted and universally known.

That the uterus is not held *in situ* by the loose large duplicatures of the peritoneum, called broad ligaments, (*ligamenta lata uteri*) is evident from the fact, that this membrane is there, as in every portion of the abdomen, thin, weak and yielding in structure, so much so as by no means to serve the office of a ligament, and least of all a suspensory ligament, as Dr. Davis calls it. (*Principles and Practice of Obstetric Medicine*, p. 500.)

To prevent a prolapsus uteri by suspensory ligaments, such apparatus should be attached firmly to some fixed point above the viscus; and as all the front paries of the abdomen above the fundus uteri is muscular, and constantly shifting position, if the supposed suspension had been necessary, it would have been effected by one or more ligamentous bands, extending upwards to the ribs, sternum or lumbar vertebræ. And even such an apparatus would have failed in its office whenever the trunk was bowed upon the pelvis, unless endowed with muscular contractility and made to act in synchronism with the great flexors of the trunk.

Certainly that portion of the peritoneum which is as it were thrown like a loose thin canopy over the top of the pelvic viscera, possesses none of these characteristics. It would seem also that the secerning office of the peritoneum, rendering it in the eye of the physiologist, a delicate glandular expanse, should have prevented pathologists from lightly ascribing to it the utterly distinct and rude offices of ligamentous structure. Nor can the round

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ligaments, whatever other office they may perform, be said to act as suspensories to the womb. They go off from the fundus uteri to the mons veneris in a nearly horizontal direction; they describe a loose curve, and by no means upon the stretch; and they are not muscular. They may possibly act as suspensories in cases of complete prolapsus, where the uterus is pendulous between the thighs, but certainly in no other case.

Dewees and many other writers of eminence have ascribed to the vagina the station of an important adjuvant to the ligaments, in keeping the womb in place. But it is well known that relaxation, or rather procidentia of the vagina not unfrequently occurs, independently of prolapsus uteri, and it may fairly be questioned whether the folding and descent of the vagina in the latter case, are not in all cases *always* in the relation of effect to cause. Besides, it is affirmed by Professor Hamilton, upon apparently indisputable authority, that laceration of the perineum is always followed by prolapsus uteri, a fact which goes very far to disprove the idea that the vagina takes any great share of the support of the uterus. The structure and condition of the vagina, a flexible and collapsed passage, would also appear to preclude this hypothesis.

Mad. Boivin thinks prolapsus in its incipient stage is owing to relaxation or elongation of the utero-sacral ligaments. (*A Practical Treatise on Diseases of the Uterus* by Mad. Boivin. Heming's translation, p. 43.)

Meckel advances the idea that the uterus is kept in place by muscular fibres, going from the sides of that viscus into the adjacent peritoneal folds and the round ligaments. But the existence of these muscular fibres requires certainly farther confirmation than is afforded by the obscure author from whom Meckel cites. (*Doane's Meckel*, vol. iii. p. 403.)

Still, how could these minute short fibres going from the womb laterally into the loose, thin folds of the peri-

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toneum, lift or suspend that viscus, or prevent its descent? They could not lift the womb up unless inserted above its fundus, and that to a comparatively fixed structure, neither of which conditions exist. If they were to move the uterus at all, it would necessarily be to move it laterally, but it should seem that their contraction would be much more apt to approximate the peritoneal folds nearer to the womb, than to stir that much heavier body from its position; In fact Meckel himself says in another paragraph, that these fibres in question draw the ovaria into contact with the fimbria. (*Loc. cit. ibid.*)

The same objection invalidates the supposed suspending action of the round ligaments, admitting their muscularity, that has been above applied in reference to them, to wit: that their point of attachment is not above their origin. The only action possible to ascribe to them in this case, would be that of preventing retroversio uteri. To arrive at a just notion of the mechanical cause of prolapsus of the uterus, we have only to ascertain by what means it is kept *in situ* during health. A question which, it appears to me, the present state of anatomical knowledge enables us to answer without the slightest difficulty or doubt.

The venerable Scarpa was the first physiologist to discontinue the received idea of the great force of the peritoneal folds, in the capacity of ligaments, and to furnish a clue to the occult cause of hernia; and his views on that intricate subject apply with equal force to the pelvic displacements, when taken in connection with what John Burns and Velpeau have written on the latter subjects. (*Traite des Hernies.*)

"In the healthy state," says Scarpa, the abdomen, considered altogether, is submitted to two opposite forces, which reciprocally balance each other. If these forces were in perfect equilibrium in all individuals, and under all the circumstances of life, we should not be in the least

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subject to hernia. If when the equilibrium has been broken every part of the parietes of the belly were to yield equally to the impulse of the viscera, an increase of the volume of the whole abdomen would be the consequence; but a true hernia would never happen. The cavity of the abdomen is always completely full."

The containing and contained parts react upon and reciprocally compress each other. It is by the effect of this moderate but equal and unremitting pressure, that all the viscera mutually support each other. Without it the ligaments of the liver, those of the spleen, and the various membranous bands of the intestines in general, would only be feeble means for fixing such parts in their respective situations.

But there is another antagonism besides that between the containing and contained parts to which he did not allude, which assuredly plays a very important part in keeping the viscera of the abdomen in their respective situations. I mean the antagonism between the diaphragm and the abdominal muscles. When by the act of inspiration the liver, stomach, spleen and intestines are propelled downwards by the diaphragm, sensibly, and to a considerable extent, how are they made to pursue the retreat of that septum, keeping all the time in close contact with it? They certainly are not dragged upwards by their ligaments. These delicate reflections of the peritoneum are by no means fitted for so rude a task. The whole abdominal viscera are manifestly kept in contact with each other, and with the receding diaphragm, by the action of the abdominal muscles, which give way as it descends, and pursue it by renewed contraction, as it retires; that is, act in constant antagonism with it.

The abdominal viscera, then, are kept *in situ* by an equilibrium in the muscular walls that surround them. The viscera are passive and extremely moveable, and depend for their contact and due relative locality upon the

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forces exerted from without, upon them, by the containing parts. They possess no inherent power of changing or recovering locality. Accordingly we find that whenever from mechanical or internal causes, any portion of the muscular parieties of the abdomen is relaxed or weakened, that part assumes a fulness of form, the intestines being driven with unaccustomed force against its inner surface, and a proportionate diminution of capacity of another portion of the cavity taking place. In hernia of the groins, the epigastric region sinks in somewhat, and the iliac portion of the hypogastrium assumes a greater fullness than natural. Independently of natural hernia, there exists from the lower part of the oblique and straight muscles becoming relaxed, a great fullness of the whole hypogastrium, with a corresponding very palpable sinking of the epigastric and umbilical regions: a state which has been recognised by several writers, and which ought to be called internal or latent hernia.

This alteration of the relative situations of the viscera exists, according to my observation, in most cases of confirmed dyspepsia, and is very manifest by looking at the abdomen, when the patient is erect. Is it not possible that many cases of inveterate indigestion could be materially alleviated by assisting the hypogastric muscles by well-directed support?

That a dislocation of the intestines downwards, should be attended by a greater or less change of relative position in the viscera of the pelvis seems unavoidable; and if we assume that the levatores ani and coccygei muscles, which constitute the flooring of the pelvis, and which act synchronously with the hypogastric muscles, are relaxed and weakened at the same time, we have an ample explanation of the occurrence of prolapsus uteri, which appears to me very much more in accordance with sound medical logic than the prevailing doctrines.

If we consider the two cavities as one, (and they are

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only divided by an anatomical fiction, being in reality but one) great cavity, closed above and below by two antagonist diaphragms, and then suppose the lower septum to have lost a portion of its resisting power, we should state the pathological problem presented by the malady in question, in a plain and perhaps unobjectionable manner.

Velpeau in a very perspicuous manner describes this antagonism, but ascribes the lower portion of it wholly to the transversales and coccygei muscles, (*Surgical Anatomy*, Dr. Sterling's translation, vol. i., p. 259,) whereas, it is certainly evident to any one taking the least pains to observe the respiratory motions of the abdominal muscles, that the hypogastrium constitutes as decided a part of the lower force as the perineum does.

From the observations I have made since this view of the nature of prolapsus occurred to me, now nearly four years, I am convinced that the hypogastric muscles are always more or less elongated or weakened in that disease. It appears to me not improbable that pelvic herniæ are produced by relaxation of the hypogastrium, independently of the perineum. It is easy to suppose, that the folds of the small intestines, upon losing part of the muscular support of the hypogastrium, would be pressed down into the pelvis by the dominant force from above, forming perineal hernia, or that by being pressed against the uterus, that viscus should be disturbed in its position, constituting retroversion, anteversion, or the lateral displacement spoken of by Meckel. (*Loco citato.*)

But the necessary result of a combined relaxation of both portions of the floor of the abdomen, the hypogastrium and perineum, would of course be a prolapsus of the uterus, connected with a corresponding sinking of the intestines, involving, most probably, to some extent, the stomach, liver and spleen.

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The indications of cure growing out of this view of the nature of prolapsus, are:

I. To diminish the preternatural capacity of the hypogastric, and ano-perineal regions; and,

II. To restore tone to the muscular portions of those parts.

The first of these indications is answered by the ingenious apparatus of Dr. Hull, entitled by him, *Utero Abdominal Supporter*, which presses against the two weakened and distended points of the abdomen, with any required force, and at the same time preserves by its elasticity, the faculty of advancing and receding with the respiratory action of these parts. The second indication is also fulfilled to some extent by this instrument, by means of the well known sanatory influences of equal and uniform compression upon parts distended and weakened by forces from within. At any rate, it affords the weakened muscular and aponeurotic apparatus it covers, rest and opportunity to recover their lost tone; an object of so much importance in the estimation of Prof. Burns, Dr. Davis, and many other eminent writers on the subject, as to induce them to insist upon nearly absolute rest in a recumbent posture for a very long period of time.

I have had frequent opportunities during the past four or five years, of seeing the results of the late Dr. Hull's instrument, and they have been such as fully to justify the views I have set forth, and to convince me that the old and ever inefficient expedients of the recumbent posture, styptic injections, pessaries, &c., and the erroneous views upon which they are founded, will be exploded in a very short time.

The objections to the old practice become more apparent and palpable, when considered in connection with the views I have advanced.

I. *The Horizontal Posture.*—This is earnestly insisted upon by Prof. Burns, Sir Charles Clarke, M. Gardien,

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and Dr. Davis of London, the most eminent recent writers on obstetric medicine. It is founded on the hypothesis of the ligaments, and cannot, it appears to me, prove serviceable in any great number of cases. It is possible that, in some instances, presenting great vigor of muscle, and fullness of the vascular system, the loss of appetite and general relaxation necessarily resulting from a rigid adherence to this irksome position, for two or three months, the shortest time named by Dr. Davis, might, by greatly reducing the upper forces of the abdomen, palliate the prolapsus to a considerable extent: But though the recumbent posture immediately relieves the patient from the dragging and bearing down which are especially distressing in the early appearance of the displacement, it is not to be forgotten, that a large majority of those subject to this malady, are, by no means, in a condition to sustain, without serious consequences, the prostration and general debility caused by persisting in it for any length of time. Indeed, the authors cited, one and all, condemn this treatment, in principle, by strongly insisting upon the use of means for invigorating the system, a loss of tone in which they consider the remote cause of the disease.

Dr. Davis affirms that the horizontal posture, "rigidly observed for two or three months, might possibly suffice to insure a restoration of the suspensory ligaments [which are they?] of the uterus to their former tone and strength." He offers no experience whatever in support of the prescription, nor does either of the other writers on the subject. It appears to be founded solely upon the prevalent but irrational supposition, that the peritoneal folds and round ligaments suspend the uterus, in the healthy state, and that relaxation in them is the proximate cause of prolapsus; and this pursuit of a hidden cause, which transcends the possible limits of testimony, in this, as in very many other cases in medicine, seems to take off the

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attention from the plainest possible mandates of experience.

Professor Thompson asserts that this practice "tends not only to impair the general health, but also to aggravate the disease, by *increasing the relaxation of the natural supports of the womb; daily experience has established the validity of this opinion.*" Mad. Boivin does not recommend its adoption.

II. *Styptic Injections into the Vagina.*—This practice, so frequently followed by pernicious consequences in the treatment of leucorrheal discharges, is also recommended by the eminent authors above quoted.

It is difficult to conceive how the injection of astringents into the vagina, can restore tone to the round ligaments, or to the peritoneal folds, or corroborate their convalescence; yet such are the faculties ascribed to them. But it is easy to imagine that they may irritate the mucous membrane of the vagina, and suddenly dry up habitual discharges from it, to the very great detriment of the general health; and also excite serious indurations, and even ulcerations of the os uteri. Much indubitable testimony exists in the records of medicine to support the latter supposition, but so far as I am aware, none whatever in favor of the former. Is it not probable that both these expedients, the horizontal posture and the use of styptics, have been resorted to, successively, and after other means, because practitioners have been so constantly baffled in the treatment of the malady in question?

III. *Pessaries.*—After permitting the descent of the intestines upon the viscera to take place, without pathological recognition, it is not to be wondered at that the appearance of the uterus at the vulva should be regarded by the earliest surgeons as the result of relaxation of its upper connecting points; nor that its farther descent should be opposed by the introduction of a prop, or block, into the vagina, which, upon having its long diameter

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arranged across that passage, should be incapable of expulsion through its outlet, thus presenting an effectual barrier against the exit of the womb from that part. But it is matter of surprize, as before stated, that the improvements in anatomical knowledge which the last century has developed should not have produced a better mode of curing prolapsus than was devised in the first and rudest stage of surgical invention.

The objections to the application of pessaries are:

1. They are not surgically indicated; they consequently never act as remedies, but merely palliatives in all cases, and like all other palliatives, they tend to perpetuate the necessity of their application during the life of the patient.

2. They distend the flooring of the pelvis and increase the capacity of the ano-perineal region, thus directly aggravating one essential and important element of the disease.

3. They provoke mucous discharges from the vagina, where they do not exist, and change the character and quantity of existing ones, much for the worse.

4. They occasionally produce serious inflammations. Velpeau relates a fatal peritonitis, produced by a pessary, introduced by himself. (*Surg. Anat.*, ii. p. 283.) They cannot be worn by many patients on account of the local and constitutional irritation they produce.

5. They are likely to hasten the development of latent schirrous affections of the os uteri, which are sometimes complicated with prolapsus, and perhaps more frequently than has been suspected. (S. Cooper quotes cases from Ruysch & Langenbeck, in his *Surgical Dictionary*, art. Prolap. Uteri.) This is a very strong objection to pessaries.

6. They interrupt sexual intercourse.

7. Numerous instances are related in surgical works, of pessaries becoming so encrusted and firmly imbedded

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in the vagina, as to require serious operations to extract them.

8. Their proper application, the choice of their form and dimensions, so as to adapt them well to each case, is a point of much difficulty with the most expert surgeon. The majority of practitioners must find extreme difficulty in these respects.

The unsatisfactory results of ordinary methods, recently induced a practitioner of high character to undertake a radical cure, by obliterating the cavity of the vagina! Mr. Liston brought the sides of the vagina together by several ligatures. It is scarcely necessary to say, that this cruel experiment failed entirely. Professor Thompson sanctioned the attempt.

Dr. Marshall Hall has lately removed a strip of the mucous membrane, an inch and a half wide, from the whole length of the vagina, for the purpose of contracting the diameter of that canal so much as to prevent the descent of the womb through it. I mention these cases, not by any means as precedents worthy of imitation, but as showing conclusively the inefficiency of the prevailing practice in this disease, and the vagueness of the views upon which such practice is founded.

The method of Dr. Hull is liable to none of the objections enumerated, nor so far as I am able to judge is it objectionable in any regard. A large number of my professional colleagues in New-York have applied the new apparatus, and all, I believe, with gratifying success.

There is an important consideration in favor of the external mechanical support worthy of notice: this is its salutary influence in the flexions and lateral displacements of the fundus uteri not accompanied by prolapsus. It is probable, as before stated, that retroversion, anteversion, and the lateral dislocation of Meckel, are caused by a relaxation of the hypogastrium, permitting the small intestines to sink below the brim of the pelvis. The cir-

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cular portion of Dr. Hull's Supporter would in this case be indicated, and doubtless prove successful. Farther experience will determine how far abortions from this condition may thus be averted. It is probable also that many distressing gastric affections, arising from dislodgement of the intestines, and ascribed to other causes, and particularly to morbid sympathy with the uterus, may be effectually removed by this apparatus. The same remark may be made in reference to affections of the urinary bladder. I have seen two cases of partial incontinence of urine, not connected with prolapsus, cured by this instrument. It was applied upon the supposition that the intestines compressed the bladder and diminished its capacity. The distended condition of the hypogastrium and hollowing of the upper part of the belly before spoken of, existed in both instances, and gave rise to the conjecture as to a mechanical cause.

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ART. III. STATISTICAL OBSERVATIONS *on the number of* BLIND *in* PENNSYLVANIA *and the* UNITED STATES. By SAMUEL HAZARD Esqr. of PHILADELPHIA.*

[Communicated by the Author.]

Table showing the number of Blind in the United States: also, the relative proportion to the population, &c.

STATES.	Total No. Blind.	Proportion to whole population—1 to	Proportion of blind whites to whole white population—1 to	Proportion of colored blind to whole color'd population—1 to	Proportions of col'd to the whole population.
Maine,	160	2497	2505	1177	1 in 339
New-Hampshire,	105	2565	2559	.....	1 " 443
Massachusetts,	223	2737	2768	1409	1 " 86
Rhode-Island,	64	1518	1672	447	1 " 27
Connecticut,	195	1526	1540	1152	1 " 30
Vermont,	51	5503	5485	.....	1 " 317
New-York,	724	2650	2918	547	1 " 43
New-Jersey,	227	1413	1464	734	1 " 16
Pennsylvania,	503	2680	2758	1369	1 " 35
Delaware,	29	2646	3205	1741	1 " 4
Maryland,	271	1649	1980	1257	1 " 3
Virginia,	793	1527	1956	1180	1 " 2
North-Carolina,	384	1922	2120	1647	1 " 3
South-Carolina,	238	2442	2528	2377	1 " 2
Georgia,	273	1893	1979	1789	1 " 2
Alabama,	116	2668	2800	2482	1 " 2
Mississippi,	56	2439	2817	2135	1 " 2
Lousiana,	113	1909	2485	1640	1 " 2
Tennessee,	213	3201	3044	3950	1 " 4
Kentucky,	252	2729	3064	2050	1 " 3
Ohio,	238	3940	3993	1596	1 " 98
Indiana,	87	3942	3887	1816	1 " 94
Illinois,	39	4037	4443	596	1 " 66
Missouri,	37	3796	4251	2566	1 " 5
Michigan,	5	6327	6269	.....	1 " 108
Arkansas,	10	3038	3209	2358	1 " 6
Florida,	19	1828	6128	1020	1 " 2
District of Columbia,	19	2096	2506	1534	1 " 3
	5444	2363	2650	1584	

* The substance of the present communication was published some years since in Hazard's Register of Pennsylvania, a periodical then edited by the author.

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Upon a review of the above table, our attention is first directed to the great difference which exists in the relative proportions of the blind to the population, in the several states, varying from 1 in 1413 to 1 in 6327. The greatest proportion of blind persons being in New-Jersey, and the smallest in Michigan.

On comparing the proportion of the *white* blind with the *colored* blind, the difference is still more remarkable; the largest proportion of the former being, in New-Jersey, viz: 1 in 1464, and the smallest in Michigan, 1 in 6269; while the largest proportion of the *colored* is in Rhode-Island, 1 in 447, and the smallest in Tennessee, 1 in 3950.

In the state of Tennessee alone, is there an excess in the proportion of *white* blind over the *colored*, the former being 1 in 3044, and the latter 1 in 3950. In South-Carolina, the proportion is nearly equal, the *whites* being 1 in 2528, and the *colored* 1 in 2377. In Alabama and Georgia, also, the proportions are not so different as in the other states — the *whites* being in the former 1 in 2800, and the *colored* 1 in 2482, and in the latter 1 in 1979 for the *whites*, and 1 in 1789 for the *colored*. In most of the other states, the excess in the proportion of the *colored* is very remarkable.

In the whole population of the United States, the proportion of blind is 1 in 2363 — of the *white* blind to the *white* population 1 in 2650, and of the *colored* blind to the *colored* population 1 in 1584.

How are these differences to be accounted for?

Geographical position may not fully explain it, yet some facts in this respect are worthy of notice.

Those states on the Atlantic coast which are more fully exposed to the influence of the sea air, have the largest proportion of blind; as for example:

Rhode-Island, - -	1 in 1518
Connecticut, - -	1 in 1526

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New-Jersey, - -	1 in 1413
Maryland, - -	1 in 1649
Virginia, - - -	1 in 1527
North-Carolina, - -	1 in 1922
Georgia, - - -	1 in 1893
Florida. - - -	1 in 1828
Louisiana, - - -	1 in 1909

The proportions diminishing as we proceed south.

As we proceed into the interior from the sea-coast, the proportion decreases still farther, as for instance.

Pennsylvania, - -	1 in 2680
Kentucky, - - -	1 in 2729
Tennessee, - - -	1 in 3201
Arkansas, - - -	1 in 3038
Missouri, - - -	1 in 3796

Proceeding still further from the sea-coast, and approaching those great reservoirs of fresh water, the lakes, a further decrease in the proportion occurs, as for example —

Indiana, - - -	1 in 3942
Ohio, - - -	1 in 3940
Vermont, - - -	1 in 5503
Michigan, (surrounded by lakes) - - -	1 in 6327

In those states, a portion only of whose territory is situated on the Atlantic, while a principal portion of it extends into the interior, or borders on the lakes, the proportion of the blind is about a medium between the two extremes; for instance —

Maine, - - -	1 in 2497
New-Hampshire, -	1 in 2565
Massachusetts, - -	1 in 2737
New-York, - -	1 in 2650
Delaware, - - -	1 in 2646
South Carolina, -	1 in 2442
District of Columbia, -	1 in 2096

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Mississippi, - -	1 in 2439
Alabama, - - -	1 in 2668

It is probable, therefore, from the foregoing facts, that if a comparison were made, between the portions of these states situated on the sea-coast, and those portions more remote from it, the proportions of the blind, within the influence of the sea-air, would be in excess. This is verified so far as we have made the examination. The result is as follows:

1. Maine. The counties of York, Cumberland, Lincoln, Hancock, Washington, Kennebeck and Waldo, all situated on the Atlantic, give the aggregate proportion of 1 in 2516, while in Oxford, Somerset, and Penobscot, removed from the sea, it is only 1 in 4101. Most of these last counties abound with lakes.

2. The Atlantic counties of Massachusetts, viz. Barnstable, Duke, Nantucket, Plymouth, Bristol, Norfolk, Middlesex, Essex and Suffolk, give 1 in 2320; while the interior counties of Worcester, Franklin, Hampshire, Hampden and Berkshire furnish only 1 in 4107. The proportion in Duke county, (which is an island) is 1 in 1172, and in Nantucket county, (another island) it is 1 in 1800, proportions still greater than in the Atlantic counties on the main land. Barnstable county taken by itself, appears to form a remarkable exception from the other counties, the proportion there being only 1 in 14257, while Plymouth county immediately adjoining it on the north, with its whole length open to Massachusetts bay, gives the proportion of 1 in 2688; and Bristol, which adjoins Plymouth on the south-west, exposed to Buzzard's bay, but watered by Taunton river and other streams, gives 1 in 4133.

3. In the Atlantic counties of Connecticut, the proportion is 1 in 1361, and in the interior counties 1 in 1643. In the eastern counties of Virginia, extending from the Atlantic to the mountains, the proportion is 1 in 1370,

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and in those west of the mountains it is 1 in 2045. So the southern counties of New-York give 1 in 2120, while the northern or western 1 in 2931. South Alabama 1 in 2484, north Alabama 1 in 2945. East Louisiana 1 in 1707, west Louisiana 1 in 2743.

From the preceding facts, therefore, it would appear, as a general result, (allowing, of course, for exceptions, which may arise from other local or particular causes) that the admixture of sea and land air, is favorable, under certain circumstances, to the production of blindness in the United States. How far this may be the case in islands in the ocean, far removed from the main land, we have no means of ascertaining. With regard to the two islands already noticed, Duke and Nantucket, it will be observed, that they appear to give a larger proportion of blind than the Atlantic counties of their state on the main land, and that, of the two islands, Nantucket, which is farthest at sea, gives the smallest proportion, and yet Barnstable county, almost an island, but still, connected with the land, affords a smaller proportion, with two exceptions, than any part of the United States which we have examined. Has its *peninsular* location, or the seafaring life of its inhabitants, any effect in producing this result?

Our remarks thus far have reference principally to the whole population of the United States, white and colored; let us now make some comparison between these two classes. With few exceptions, the colored inhabitants appear most liable to blindness in all the states: but in four of the states, this seems especially to be the case, viz.:

Rhode Island, - - -	1 in 447
New-York, - - -	1 in 547
Illinois, - - -	1 in 596
New-Jersey, - - -	1 in 734

While the white blind in the same states are from 1 to

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1464 to 1 in 4443. Three of these are Atlantic states, two of which we have placed in the first rank as favorable to blindness, the other occupying a medium, and the fourth, viz. Illinois, among those most exempt from this infirmity. We state the fact without attempting to account for it.

In Vermont, New-Hampshire, and Michigan, there are no blind colored persons, but in these states the colored population is trifling.

In Florida, Connecticut, Maine, Virginia, Maryland, Pennsylvania, and Massachusetts, the colored blind are in the proportion of 1 in 1020 to 1 in 1409, while the proportions among the whites in the same states are from 1 in 1540 to 1 in 6128. Here we have another instance of apparent peninsular effect. Florida, while it gives a proportion for the whole population of white and colored blind of 1828, shows a remarkable difference in the two classes, giving for the whites the proportion of 1 blind in 6128, and for the colored that of 1 in 1020; with regard to the former, being second to the most favorable of any state, and with respect to the latter, holding the fifth rank among the most unfriendly.

In the District of Columbia, Ohio, Louisiana, North Carolina, Delaware, Georgia, and Indiana, the proportions of colored blind vary from 1 in 1534 to 1 in 1816, while those of the white, in the same states, are from 1 in 1979 to 1 in 3994, arranged in the following order:— Georgia, North Carolina, Louisiana, District of Columbia, Delaware, Indiana, Ohio.

In Kentucky, Mississippi, Arkansas, South Carolina, Alabama, and Missouri, the colored blind are as 1 in 2050 to 1 in 2566, while the white blind in the same are as 1 in 2528 to 1 in 4251, in the following order: South Carolina, Alabama, Mississippi, Kentucky, Arkansas, and Missouri.

In Tennessee, as we have before observed, the excess

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of blind is among the white, the proportion being 1 in 3044, while of the blacks it is 1 in 3950.

The state in which the largest proportion of white blind is found, is New-Jersey, being 1 in 1464, and those in which the smallest proportions exist, are Michigan 1 in 6269, and Florida 1 in 6128, situated at the opposite extremes of the United States, one surrounded by fresh lakes; and the other a peninsula, nearly encompassed by the ocean; and Barnstable forming a part of Massachusetts, another peninsula, giving the least of any portion of the United States which we have examined, (excepting Crawford county, Pennsylvania) viz. 1 in 14,257. The circumstances of these peninsulas are very different: the one being a long narrow strip of land, and the other containing a considerable portion of interior country.

The state in which the largest proportion of *colored* blind is found is Rhode Island, being 1 in 447, and that in which it is the smallest is Tennessee, 1 in 3950.

The *non*-slave-holding states give aggregately the proportion of colored blind at 1 in 9[illegible], while in the *slave*-holding states it is 1 in 1676 of the colored population. Those of the slave states, viz. Maryland, Virginia, North and South Carolina, Georgia, Alabama, Mississippi, Louisiana, and Florida, situated on the seaboard, give 1 in 1579, while those in the interior, viz. Tennessee, Kentucky, Missouri, Arkansas, and District of Columbia, give 1 in 2626.

It would therefore appear that under all circumstances, the colored population is most subject to blindness — that both in the Atlantic states and in those immediately bordering on the lakes it is the most liable to it — and most free from it in those states remote from either of those extremes. On the other hand, in the latter states, taken aggregately, the whites are less subject to blindness than in the Atlantic states, and towards the lakes

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still less than between the two extremes, notwithstanding the two or three apparent exceptions, which we have noticed.

Is there any peculiarity in the physical organization of the colored population which predisposes it to this infirmity, in those situations and under those circumstances which are most favorable to the whites? — or does the difference arise from their habits, employments, or manner of life? — or is it the effect of other diseases?

The following table was prepared in order to ascertain, in the absence of information which the census ought to have contained — whether a large proportion of the blind were not very aged — and if so, whether the number of those of suitable ages to be educated, was not small — and whether this infirmity might not be the natural effect of age rather than of other causes. But we do not know that it sheds much light upon the subject.

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TABLE

Showing the Relative Proportion of the Population in each State over 50 years of Age.

STATES, &c.	WHITES.				TOTAL.	free col'd	Slaves.	Blacks.
	50 & 60	60 & 70	70 & 80	80& upw.	Over 50	Over 55.	Over 55	Ov'r 55
Maine,	1 in 21	1 in 34	1 in 47	1 in 202	11	1 in 10	1 in 2	11
New-Hampshire,	17	23	45	122	8	7	5	8
Massachusetts,	18	26	47	125	8	9	1	9
Rhode-Island,	19	28	49	132	8	8	2	8
Connecticut,	17	23	42	123	8	11	2	11
Vermont,	19	28	65	198	9	8	0	8
New-York,	24	40	95	320	12	14	9	14
New-Jersey	21	32	71	244	10	10	4	12
Pennsylvania,	23	40	93	309	12	16	6	17
Delaware,	21	46	124	494	13	13	34	17
Maryland,	21	41	99	314	12	10	19	14
Virginia,	23	39	92	264	12	12	19	18
North-Carolina,	22	39	94	270	12	13	21	20
South-Carolina,	23	43	108	312	13	10	19	19
Georgia,	28	52	141	414	15	9	28	27

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Alabama,.....	30	62	186	541	18	14	41	40
Mississippi,.....	30	74	235	786	17	14	42	41
Louisiana,.....	27	57	168	443	16	14	29	26
Tennessee,.....	26	53	135	363	15	11	38	35
Kentucky,.....	25	44	108	337	13	6	33	29
Ohio,.....	27	48	141	479	15	16	0	17
Indiana,.....	30	61	179	608	18	14	0	14
Illinois,.....	31	78	236	807	20	17	32	20
Missouri,.....	40	83	250	955	20	9	56	51
Michigan,.....	30	78	316	783	20	22	39	22
Arkansas,.....	35	81	256	1027	20	14	46	43
Florida,.....	27	62	180	657	17	10	38	34
District of Columbia,....	24	53	163	437	14	10	21	10
United States,.....	.....	.....	.....	.....	11	12	24	21

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In three of the states in which blindness among the blacks is in largest proportion, it may perhaps be partially owing to age, as we find by inspecting the table, that in Rhode Island 1 in 8 is over 55 years of age, in New-Jersey 1 in 12, in New-York 1 in 14 — but in the other states, of Illinois only 1 in 20, and in Florida only 1 in 34. Although this table may be of no use in the present inquiry, yet having prepared it with some labor, it is inserted, as it may be useful for some other purpose: and it affords in fact an interesting view of the proportions in each state, of persons at the different periods, above fifty years of age. At first view, it would appear to indicate those states which are favorable to longevity, but this is not the fact: for although in the older states the aged are in the largest proportion, they have in some measure become so by the removal from them, of, principally, the younger portions of the community to the new states.

The whole population of the state of Pennsylvania is 1,348,233, of whom 503 are blind, being the proportion of 1 in 2680.

The whole *white* population is 1,309,900, of whom 475 are blind, being 1 in 2758.

The whole *colored* population is 38,333, of whom 28 are blind, being one in 1369.

The whole population of *East* Pennsylvania is 755,514, of whom 268 are blind, being 1 in 2819.

The *white* population of East Pennsylvania is 724,173, of whom 250 are blind, being 1 in 2897.

The *colored* population of East Pennsylvania is 31,341, of whom 18 are blind, being 1 in 1741.

The whole population of *West* Pennsylvania is 592,719, of whom 235 are blind, being 1 2522.

The *white* population of West Pennsylvania is 585,727, of whom 225 are blind, being 1 in 2603.

The *colored* population of West Pennsylvania is 6992, of whom 10 are blind, being in proportion of 1 in 699.

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In East Pennsylvania the proportions of blind to the population of the different counties, vary from 1 in 1530, to 1 in 7663. In Western Pennsylvania from 1 in 1215, to 1 in 16030.

The largest proportion of blind is in Fayette county, situated in the southwestern portion of the state, between the Laurel Hill and the Monongahela river; and having the Chesnut Ridge traversing it nearly in the centre, from N. E. to S. W.; the proportion of blind is 1 in 1215. The next largest proportion of blind is found in Mercer county, viz. 1 in 1233. This county is situated in the N. W. portion of the state, is traversed by a principal branch of the Beaver river, and immediately adjoins on the south, Crawford county, in which it is remarkable that the smallest proportion of blind in any county of this state, or indeed of the United States, so far as as we have examined, is to be found — 1 in 16,030. Crawford county is only separated from Lake Erie by the narrow county of Erie, which has the proportion of blind — 3408. In Crawford county, is also Conneaut Lake. Warren county, which joins Crawford on the east, and is traversed by the Allegheny river, gives the proportion of 1 in 1565, while Venango county, which also has this river and two large branches passing through it, and which forms a portion of the boundary of all the other three counties, gives the proportion of blind only 1 in 4735. Can these differences be explained by any local causes?

The following counties throughout the state, give the largest proportion of blind.

Fayette,	1 in 1215	Chester,	1 in 1642
Mercer,	1 in 1233	Washington,	1 in 1711
Potter,	1 in 1265	Armstrong,	1 in 1770
McKean,	1 in 1439	Dauphin,	1 in 1803
Greene,	1 in 1502	Somerset,	1 in 1973
York,	1 in 1530	Columbia,	1 in 2005
Warren,	1 in 1565	Jefferson,	1 in 2025
Clearfield,	1 in 1601		

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Of these counties, eight are situated on the tributaries of the Ohio river, five on those of the Susquehanna, and one on the Delaware. Somerset lies between the Allegheny mountains and Laurel Hill.

The smallest proportion of blind is found in the following counties.

Crawford,	1 in 16030	Bradford,	1 in 6582
Centre,	1 in 9439	Lycoming,	1 in 5878
Wayne,	1 in 7663	Bucks,	1 in 5083
Lehigh,	1 in 7418	Butler,	1 in 4860
Cumberland,	1 in 7306	Pike,	1 in 4843
Perry,	1 in 7130	Venango,	1 in 4735
Indiana,	1 in 7126	Northumb'd,	1 in 4533
Schuylkill,	1 in 4149	Franklin,	1 in 3893
Huntingdon,	1 in 3878		

Of these counties, four are the tributaries of the Ohio, six on the Susquehanna, and five on the Delaware. Twelve of them are embraced in the most mountainous districts of the state. Centre county is in the very centre of the mountains, and affords the second smallest proportion in the state.

The following counties afford a medium proportion.

Luzerne,	1 in 3422	Tioga,	1 in 2992
Erie,	1 in 3408	Delaware,	1 in 2887
Mifflin,	1 in 3100	Westmoreland,	1 in 2650
Philadelphia,	1 in 3095	Union,	1 in 2599
Bedford,	1 in 3063	Montgomery,	1 in 2463
Lancaster,	1 in 3065	Allegheny,	1 in 2407
Adams,	1 in 3054	Susquehanna,	1 in 2398
Northampton,	1 in 3037	Cambria,	1 in 2358
Beaver,	1 in 3023	Lebanon,	1 in 2284
		Berks,	1 in 2215

Of these counties, nine are on the tributaries of the Susquehanna, three on those of the Ohio, and five on the Delaware, and one on Lake Erie.

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It would therefore appear that, with few exceptions, the most mountainous regions of the state give the smallest proportion of blind — that counties which lie immediately between two considerable ridges of mountains, are among the lower or medium proportions — as for example, Somerset and Cambria; and that when their position is between mountains and some of the large streams, the situation is favorable to blindness, as Fayette, and Columbia. The counties on the tributaries of the Ohio, seem to furnish larger proportions of blind than those on the Susquehanna, and those on the Delaware smaller proportions of blind than on either of those rivers.

The proportions of *colored* blind vary from 1 in 53 to 1 in 3906 — which last is found in Philadelphia county, and is less than that of the *white* blind in that county, which is 1 in 3056. The correspondence between the proportions of both white and colored in Philadelphia county and Tennessee, is very remarkable.

	White Blind.	*Colored Blind.*
Tennessee	1 in 3044.	1 in 3950.
Philadelphia co.	1 in 3056.	1 in 3906.

The following table will show, that in some instances the proportion of the blind in cities and towns is sometimes greater, at others less than in the remaining part of the counties in which they are situated.

	City or Town.	*Rest of City.*
Boston, Mass. -	1 in 3410.	771.
New London, Ct. -	1 in 867.	1052.
Hartford, - -	1 in 1415.	1377.
New Haven, - -	1 in 1454.	1683.
New-York city and co.	1 in 2119.	——
Albany, N. Y. -	1 in 6952.	1628.
Philadelphia, Pa. -	1 in 2874.	3283.
Reading, - -	1 in 1952.	2252.

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Lancaster, - -	1 in 1541.	3446.
Pittsburg, - -	1 in 3142.	2532.
Baltimore, Md. - -	1 in 3317.	1388.
Cincinnatti, Ohio, -	1 in 4138.	3436.
Nashville, Tenn. -	1 in 1391.	3222.

We had no opportunity of comparing the proportions of blind in the U. S. with those in other countries. It has lately been stated that in Egypt and tropical climates the proportion is 1 to 300, in middle Europe 1 in 800, and in northern Europe 1 in 900. If this be the case, our country is highly favored in having no greater proportion than 1 in 2650.

When we commenced this investigation our object was merely to endeavor to ascertain whether a large proportion of the blind were not too aged to be educated. We had no idea of entering into so long and elaborate an examination of a subject which more properly belongs to medical men; but we were induced by the remarkable differences in the proportions of the blind in the several states, to trace the position of these on the map, and thus proceeded step by step until we came to the conclusions which we have stated above and to which the facts appeared, in our view at least, naturally to lead. So far as we have ascertained from medical gentlemen, to whom we have stated the result, the idea of maritime influence in producing blindness, has not before been suggested by any writer, and that, therefore, a new field for inquiry is presented, which merits attention, and which, if the opinion be found, upon further investigation, to be supported by facts, may lead to an important practical application.

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Art. IV. Annual Address *delivered before the Medical Society of the State of New-York, Feb.* 6, 1839, *by* Laurens Hull, M. D., *President of the Society.*

Gentlemen,

Called to preside over this society, I do not forget, that I am more indebted to your partiality than to my own deserts, for this distinguished honor. This station has been filled by men wiser, and better than myself, and while I am very willing to acknowledge their claims to superior wisdom and experience, I hope that I may claim for myself, and it is all that I shall ask, the character which I trust is common to us *all*, viz: devotion to the interests of the profession, and a jealous regard for its respectability. To this we are bound as much by the laws of conscience, as of professional duty; and since from the very nature of our profession, it is more exposed to the inroads of imposture and ignorance than any other, we are bound with unceasing diligence, to endeavor to prevent the spread of the popular delusions which threaten to destroy all the distinctions between virtue and vice, ignorance and intelligence, ingenuousness and cunning, and to aim at those qualifications which mark, and indeed form the character of the high minded, the learned, and the moral physician.

As it is usual on occasions of our meeting for the presiding officer to address you on some subject connected with our professional duty, or medical practice, I have thought proper to call your attention to a matter, which, although it has been frequently canvassed, remains at this day as destitute of remedy as if none had ever been suggested. You will readily anticipate me, I mean the subject of quackery. It would seem almost superfluous at this day, to call up and discuss what has been long known as the opprobrium of our profession.

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It is scarcely possible to present a remedy for the evil, if we are to form our judgment from the experience of former years; but still there is some hope that the curse will not be perpetual, if we can direct our efforts to the extirpation of its root, in place of depending upon any legal enactments to prevent its growth. I have very little confidence in the efficiency of penal statutes, they have been tried till the conviction has been forced upon us that all such experiments must fail. The prejudices of the public are always on the side of feeling, and never on the side of reason, and the cry of persecution in favor of a felon will do more to aid his escape through mistaken sympathy, than justice can to insure his punishment. I am sorry for the necessity of making this remark, it seems too severe to be true, nor would it be believed if the records of our criminal courts did not bear ample testimony to it, more especially in cases of indictment for malpractice in medicine, and of ignorant medical homicides.

The various forms which quackery assumes, are limited only by the varied features of character in society, as it presents itself in all large communities; no description of persons are exempt from its influence. The fool and the philosopher, the ignorant and the educated, the credulous and the sceptical, are alike the dupes to some besetting weakness, which makes them fit subjects for the exercise of imposture; nothing more being necessary, than the knowledge of character to detect the weak point of the assault. In some cases it is expedient to make a parade of learning, in others to affect to despise it — in some to address the fears, in others the hopes; in some the interests, and in others the vanity of those whom it would influence; and thus we have quackery in all its gradations, from the pompous exhibition of a folio of nonsense in the form of a new theory which few can read and none can understand, down to the simple assertion of a falsehood, manufactured to sell a pill, a potion, or a plaster to raise a dollar, reckless

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of the consequences to health, life, or happiness. I do not pretend to know the extent to which medical imposture has arrived in other countries, having never had the opportunity of travel, but if we may form a judgment from its prevalence here, its ravages must be incalculable: like a pestilence it manufactures the subjects on whom it preys, and no experience will teach them, till too late to be of service. The miserable victims of the delusion are led step by step to their graves without the moral strength to inquire into the pretensions of the imposture, or the good sense to balance the evidences which their own condition presents. It is only necessary to refer to a few of the absurd theories with which the public are amused and cheated, in order to shew the truth of the above remarks. Every man knows that sweating is a function of the human system essential to health, and most men know that the suspension of this discharge from the skin is speedily followed by symptoms which leave no doubt of existing disease, and upon this single fact it is attempted to build an entire system of curative medicine.

This monstrous absurdity is the *Thompsonian* practice. Sweating is the end to be obtained, and so far as we are enabled to judge from testimony, adduced on the trials for homicide, of some of those sweating agents, it is the only end to which all their violent remedies are directed; emetics of the most violent and dangerous nature are exhibited as auxiliary to this object, and the exhaustion consequent on their operation, is attempted to be controlled by stimuli as acrid and as violent as the medicine which produced it. Lobelia and cayenne pepper in pills, powders and infusions — hot baths, hot bricks and blankets make up the sum of the treatment of the ill fated patient, and this too in every variety of disease. It would seem impossible that these assertions could be true were it not that evidence, which we are bound to believe, because

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given in a court of justice fully justifies them.* While one set of impostors are amusing the sick and cheating them out of life, for the paltry fee of a few dollars by the process of *sweating*, another with about the same amount of honesty and intelligence are practising upon their credulity, by the silly dogma that purging is the only remedy for disease, and that it will not only cure, but prevent all the ills that flesh is heir to; so that between the anxiety to be relieved from disease on the one hand, and the fears of contracting it on the other, the poor deluded customer is drugged to death, and all for the profits arising from the sale of pills at 25 cents per box! The reasons by which this imposture is attempted to be supported, one would suppose to be too absurd to deceive the most simple; but as all these deceits must have something like a theory to give each of them a chance of being successful, the following may serve as a sample: "Bleeding is always improper in the treatment of any complaint, whether inflammatory or otherwise, because the life of flesh is in the blood, Leviticus xvii. 11. With as much reason might we say, that trees die from too great a quantity of sap as that a man can die from too great a quantity of blood. The moisture derived from the earth by the tree, becomes sap, and the stomach of man from the food put into it, obtains blood which supplies the daily waste of the body. The same causes tend to life in both. But that which causes life never produces death. Pain cannot exist but from *corrupt particles* being seated in the identical part where the pain is experienced. These corrupt particles when in great volume (quantity) are the *positive cause* of *death.* It is a solemn truth that corruption terminates the existence of all created beings; the importance of its speedy removal from the body when by any cause it has accumu-

*Vide the case of the people versus Frost for homicide of a person by the name of French, tried at the New-York Sessions before R. Riker, Recorder.

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lated, is therefore self evident; not only *health* but *existence* being absolutely endangered by its presence.

Let us then acknowledge that the only sure means of preventing and curing disease, is the speedy removal of *corrupt humors* from the body. Disease being only another name for *corruption*, and *corruption*, or *corrupt humors* being identified in all cases as impurity of blood.

Purgative medicine, when resorted to in season, that is, while there is sufficient vitality remaining in the system, will certainly remove corruption; thus the blood is purified; thus chronic infirmities and premature death are prevented; thus, those whose lives are of the utmost consequence to their country, and families, are often saved.

The importance of this discovery of curing diseases, after ages will do justice to. The curative effect depends on the *purgative qualities* of the pills; experience and a continuation of experiments for upwards of forty years, have made them the most judiciously balanced purge known.

Therefore, however long it may be necessary to persevere with them for the removal of any disease, no other than good can possibly result from their use—they are perfectly innocent. The healthy as well as those suffering from disease, should use them: the former to keep their blood pure and vigorous, and the latter to remove all noxious accumulations without weakening the system."

It is hardly possible to embody within the same compass of words, a greater mass of absurdities; and yet, strange as it may appear, multitudes of persons believe all this to be sound philosophy, because they think that they can understand it, whereas the real truth is, that to those who will be at the pains to reason, as they would on any other matter, it is sheer imposture calculated only to deceive the simple. To advertise a nostrum for the cure of any one disease, or its varieties, however disrepu-

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table, might have its apology, although a difference, in the circumstances of the patients could not fail to render it a very dangerous remedy; but to insist upon one cause of disease, and therefore only one remedy, is to insult the simplest measure of understanding—for in sober truth the exhibition of medicines is not directed to the causes of disease so much as to disease itself, which is a consequence. Thus for what do physicians prescribe when treating the whole class of fevers including small pox, scarlet fever and, local inflammations! Can it be the causes? in some this is *contagion:* in others *marsh miasmata:* in some *epidemic influence* which we cannot comprehend with all the aids of the light of science, and, in others, exposures to mere variations of temperature; the proposition therefore is an absurdity. But while one class of medical impostors take advantage of the simplicity of the world, and care not by what means they succeed, provided only that they are successful; there are others who seem to reason, although the foundations of all their arguments lie too deep to be fathomed by ordinary minds. They take for granted certain positions which are utterly destitute of proof, and impossible to prove, and build a *Babel* of incongruous materials till all the language of common sense is totally confounded. Such for instance is the lately imported doctrine of homœopathy, first known in this country, that is if ever known, (which, by the way I do not believe) about fifteen years ago. Its novelty and the apparent method in this fanciful doctrine first gave it some celebrity, arising merely from curiosity; and the utter impossibility of making it intelligible, is perhaps with many visionary men its best recommendation. It depends for its profitable success however more upon the fact that "deferred hope maketh the heart sick" than upon any other cause—persons who have been long sick, and hopelessly diseased, and such as, although they may *want* a physician, have no need of *him*, are for the most part the patients.

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I regret to speak in terms of reprobation of any thing that has the recommendation of mental effort; but I feel bound to say as my belief, that when the doctrine is practised upon by honest men, they are deluded, and as it regards their patients, they are not only deluded but defrauded. The doctrine, if doctrine it can be called, which requires us to believe that medicines operate beneficially in inverse proportion to their quantities to an infinite degree! that the thing which will cause the disease is the proper remedy to cure it! that the effects of agents, to common sense infinitely divided already, and so far as the eye can detect perfectly dissolved in a given fluid, will have their powers increased to an extraordinary degree by the simple process of agitating or shaking the vessels in which they are contained, and positions of a similar kind, are to say the least of them, a little too extravagant to be implicitly credited, and yet all this is true of Homœopathy. It may indeed with great truth be said, that the proper patients of such physicians, are those who can believe such dogmas. It would be a waste of your time to extend my remarks further on this subject, it revolts the sense, and the few facts on which it is made to rest, are not fully stated and therefore deceptive.

It would be much more consistent with reason, and infinitely more honest, to leave disease to expend its force, without any interference, and permit patients to follow their instincts as do the brutes in a state of nature.

The serious medical observer who sees to what an immeasurable extent poor human nature is imposed upon, is astonished at the view, and involuntarily exclaims, what can be done to arrest the delusion? and he is shut up to one and but one answer, "Teach men the right use of their senses." Entreat them to reason in cases of injuries and diseases, as they reason about other things. If *diseases* have causes, it is reasonable to suppose that *cures* have also, and these be they what they may, must be something

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more than homœopathic doses of various mineral and vegetable agents, since if the doctrine be true, every person must of necessity take more medicine when in health than when sick, for it is an incontrovertible fact that every glass of water drawn from the purest spring, contains much more than an ordinary dose of homœopathic medicine!! For ignorance in our profession we have a remedy, and we have reason to congratulate ourselves on the progress of the improvement in the education of physicians; but for imposture there is none: the mal-practice of a physician may be punished, but the deluded patient inflicts his own penalty; and as for the amount of it, apart from the ignominy, it far exceeds in severity, that of all the legal tribunals in the country. It may be difficult to estimate the amount of human suffering, and the waste of human life, occasioned by *medical imposture;* but to a close observer, at all acquainted with its prevalence, it must far exceed all the other known causes, which the restraints of law and the benevolent exertions in the cause of humanity are calculated to correct. The hydra-headed monster, intemperance, cannot boast half the success in the work of destruction that this can. It destroys its thousands by a comparatively slow and gradual process, this with no less certainty, but with infinitely more celerity; and strange as it may appear, while every exertion is made by persons of all classes, to abate the *one* and renovate the face of the society in which we live; the other finds, (and I speak of it with shame) apologists, nay supporters and friends in the recommendations of many of those, who are laboring in the cause of humanity with a zeal, which if it cannot command, deserves success.

I do not intend to speak a paradox, it is serious, solemn truth, and those who hear me know that it is so, quack medicines find their chief support, from the certificates of men of known character and integrity; from the clergy, and from such as have reputation to lend! It is not won-

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derful therefore that medical imposture is a prevailing evil: but it proves conclusively that good men are not always wise. If a man of character should give his advice to his neighbor upon an ordinary matter without having a knowledge of the circumstances upon which his opinions should be formed, there would not be an individual in the community in which he lived, who would not blame him for an unwise and unwarrantable interference, if perchance, the counsel should result unfortunately: and even if it should result otherwise, it would seem little less than a wanton exercise of opinion; and in this all men will agree: how much more culpable then, are they, who, in cases involving the most momentous issues, nay in many the questions of life and death, obtrude their advice, and certify to facts, of which from the very nature of the case, they must be totally ignorant? Are the questions of health and disease, vigor and decrepitude: life with all its enjoyments, and death with all its terrors, of so much less account in the view of such men than the ordinary transfer of a piece of land, a pair of oxen, or a span of horses! And yet this would seem to be the fact. Improper advice, more especially if it is proved to be interested, in cases where property alone is concerned, will subject the adviser to a penalty for his interference, and destroy the contract, in many cases; but those which involve all present comfort and all future hope, are left without defence. It would seem that law had made no provision for those, because it could not be foreseen that it would be required!! The extent to which medical imposture operates in our community is indeed appalling; and it is by no means an extravagant assumption, that it is productive of more evil, than any other species of imposture to which society is liable. For almost every other there is an antidote in self interest, but here that antidote fails of operation: so long as men remain ignorant, they must be the subjects of an interested delusion: their fears and their hopes are alike addressed,

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and in proportion as the one is urgent and the other buoyant, is sober and serious reason driven from the calculation of consequences. To suggest a remedy for this destructive plague may perhaps be easy; but to apply it—here is the difficulty. The public for the most part confound under one general denomination all those who profess to deal in medicine; and they are disposed to treat the whole body of physicians, as men prosecuting a vocation, merely for the sake of the profits which it yields: and so long as this belief is current, the opinions of the intelligent and educated portion of them will have little influence. We must be contented to suffer under the imputation alike disgraceful to us, and disastrous in its consequences to them, until they shall think it important to distinguish between the ignorant pretender, without conscience or education, and the well instructed physician, whose conduct and conversation attest that he possesses both. It should be the business of the physician on all occasions, to shew to the public the folly of committing their dearest interests in health and disease, to the keeping of those who affect to despise all acquirement; to inculcate upon them the necessity of judging of physicians, as they do of other men, and in the same manner. The manners, morals and intelligence of a physician, are to be learned as the manners, morals and intelligence of other professional men, and it requires very little more native good sense to form an accurate judgment in the one case, than it does in the others. There is one argument which we can urge without the slightest danger of being charged with interested motives; our profession is a liberal profession, it has for its object the relief of suffering humanity, and however some men may pervert it, it is nevertheless true that by far the largest part of its remuneration is found to be the *luxury* of *doing good.* In such a vocation there is no room for secresy, and to hold a *nostrum* or secret remedy is a disgrace to any man who calls himself a physician, for by this single practice,

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he degrades the character which is its essential ingredient — he converts so far as he can his profession into a trade, and tells the world that his object, is simply to make money, without regard to consequences. Finally gentlemen, in view of the evils which every humane and intelligent man, whether a physician or not, must seriously deplore, I see no remedy more likely to be effectual, than a frank and open expression of opinion by the profession of the disastrous consequences of medical imposture, which to do good and to have influence, must be accompanied by a correspondent liberality of individual conduct, and a constant practice of our profession in a spirit of candour and humanity, which shall commend itself to all, and serve as a standing commentary on the truths which we publicly express. This is as much our interest, as it is our duty, since the whole profession suffers, through the unworthy conduct of many, who call themselves physicians. But if it were not as much our interest as our duty: if interest and duty should, in this instance be found to conflict; nothing can be less doubtful, than that the foundation of a physician's reputation, must always rest on a conscientious discharge of all the obligations of truth; Cunning and deceit, nay even such a deficiency of moral courage as will operate to prevent their exposure, are incompatible with the station he aspires to occupy, as a high minded, liberal and intelligent physician.

In offering to you these remarks on a subject of deep interest to the community, I feel that I for one can speak disinterestedly, having for several years left the practice of the profession, I have of course no object beyond that of my fellow citizens in general, and who, if they duly appreciate their own domestic welfare, will foster and encourage by all honorable means the advancement of medical *science.*

Since the last meeting of our society I regret to state that Dr. John H. Steel, a former president, has departed this life. After acquiring his profession he served for

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several years as surgeon in the U. S. Navy, and in this capacity visited various countries. I am not acquainted with the history of his life, further than to say, that on leaving the service, he settled at the village of Saratoga Springs, where he rapidly acquired an extensive business. He represented the county of Saratoga as a delegate to this society, and in 1824 was elected a permanent member. In 1835 and 1836 he officiated as president. Dr. Steel is advantageously known as an author. Besides several communications in medical and scientific journals and in our transactions, he published an interesting analysis of the mineral waters of Saratoga and Ballston which came to a second edition in 1830. This work displays ample knowledge of chemistry and mineralogy, and indeed I presume the discovery of iodine in those waters is justly due to him. Although but little beyond the prime of life, his health had for years been failing and we have now to lament his death at a period, when he might have been still contributing new facts to medicine, and its accessary sciences.

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ART. V. *Address delivered before the* TOMPKINS COUNTY MEDICAL SOCIETY *in* 1833, *by* DR. A. CHURCH, *President of the Society.*

[Communicated by the Tompkins County Medical Society.]

The honor you have been pleased to confer upon me in electing me to preside over your deliberations demands my warmest gratitude, and I take this occasion to express to you my thanks for this mark of kindness and esteem. At the same time I feel painfully conscious of the want of those abilities requisite to discharge in a satisfactory manner the duties of my station, particularly those necessary to enable one to address in an interesting and instructive manner an audience of learned professional brethren. I therefore beg your indulgence for the defects which must appear in what I am about to submit to your consideration.

For some time past I have directed my attention to the influence of the spinal chord and the nerves proceeding from it, over a variety of diseases incident to mankind, and more particularly I am induced to think, to the inhabitants of marshy districts and places subject to intermittent fevers, though of this I cannot speak positively. I propose to lay before you gentlemen, some facts in illustration of the influence of this part of our system. I must state, *in limine*, that my knowledge on this subject is extremely imperfect, and my remarks will be rather desultory; yet disconnected as they are, I hope they may not be wholly useless.

This part of the system has been almost entirely overlooked by practitioners, in the treatment of disease, while, if I am not mistaken, it has a considerable influence over a great variety of ailments. Extending as it does from one extremity of the trunk to the other, connected with the cerebral nerves, and with the ganglionic system, supplying nerves to the upper and lower extremities and in-

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deed almost the whole muscular system; and being so much exposed to injury in violent exertions of the body and from exposure to cold, we should naturally expect that it would be more subject to accidents and diseases than most other parts of the body; and that when its functions were deranged, other parts of the body dependent upon it for nervous influence would suffer. And hence we shall often see if we observe carefully that some disorders of the stomach are attended with a soreness and tenderness of some particular part of the spine, palpitatio cordis with another, disorder of the urinary functions with another, and some species of rheumatism with other portions. Undoubtedly there may be authors who have written upon this subject of whom I am ignorant. The only work I have seen on it, is one written by *Thomas Pridgen Teale* Esquire, a very valuable little work, and one of two papers in the Medico Chirurgical Review, whose authors I do not now recollect. I am indebted to the little work by Mr. Teale for the first hints I received respecting this class of diseases; I will state however that just previous to its appearance a case of the kind came under my observation, and I treated it on the principles laid down by him. The discovery of the nature of this case was rather the result of accident than of any sagacity of mine, but the treatment proved successful very much to my gratification, as well as to the patient. The case I allude to was one of a lady aged about 24 or 26. She is said to have suffered several months previous with a severe and protracted inflammation of the lungs, for which she was bled repeatedly and reduced very low by this and other debilitating remedies. When I first saw her she scarcely complained of anything except debility and occasionally a peculiar indescribable lassitude, which would suddenly come over her, when she was unable to support herself and was obliged to take to her bed where she was confined most of the time. On examination, the different functions appeared to be per-

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formed with the regularity of perfect health, pulse perfectly natural, tongue clear, appetite good, bowels and catamenia regular and skin natural. She complained of a tightness about the chest. and a difficulty of breathing which occasionally came on in the evening and lasted for a short time and disappeared. I was inclined to attribute these symptoms to debility and accordingly prescribed tonics. After a trial of about ten days they had had no effect whatever and I was at a loss what to do. From some cause my attention was directed to the spine, on examining which, I found three of the dorsal vertebræ quite tender to the touch, and pressure upon them caused a stricture and tightness of the chest. I suspected this was in some way connected with the disease, if not a principal cause of it, and directed a blister to be applied to the part. I had the satisfaction to see the most decided relief result from this, and following it with the use of quinine and Dover's powders, together with tartar emetic ointment to the local affection for some time, the patient was shortly restored to a tolerable state of health. I ought to have observed that during her convalescence, her feet and ankles swelled and became painful, attended with pain in the loins; this however, subsided without any particular treatment. I have conjectured that the case of this lady might have been originally an acute neuralgia of the chest, and not an inflammation. I have met with such cases in my practice and have generally found them very much relieved by bleeding, for a few hours, but the pain and stricture almost invariably return very soon, and if the bleeding is persisted in, or repeated often, the pain becomes aggravated at every repetition, until the patient is brought to the borders of the grave, and I have reason to believe that such treatment has proved fatal in more than one instance. When a delicate female, or any one in feeble health, is suddenly attacked with very acute pain of the side, if this pain is quickly relieved by bleeding, and returns again in a few hours

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after each bleeding, we ought to be extremely cautious lest we be imposed upon by the semblance of genuine inflammation, when nothing but neuralgia is the cause of it, which is certainly aggravated by such depletion.

The second case I shall relate, was that of a young lady of eighteen years of age. She had suffered two years previous to my seeing her, from what her physician, a very intelligent man, had pronounced an inflammation of the liver, under whose care she had recovered, though her health remained infirm more or less till the time of my being called to her. At this time she complained of severe pain of the right side, as low as the fifth and sixth ribs, which would abate after its continuance of from twelve to twenty-four hours, leaving a soreness in the skin, very tender to the touch. It was attended with an obscure fever, which I at length became satisfied was of an intermittent character. The stomach and bowels were considerably disordered. The local affection I considered a chronic inflammation of the pleura, and treated it accordingly with the application of leeches, which removed the pain completely for a day, when it would return with increased violence.

This leeching I repeated for a number of times, always with entire relief for the time, but with a sure return, and aggravation of the pain, in a shorter period after each successive application of leeches. I abandoned this and tried a blister, which aggravated the pain very much. Still believing it inflammation, I inserted a seton. This proved very troublesome, becoming much inflamed, without procuring any essential relief. I recommended a change of residence, where she might enjoy the benefit of a high situation, and less damp atmosphere. After passing through a long course of fever in her new situation, she regained her health in a tolerable degree, and returned at the end of two or three months, and soon fell into the same train of symptoms. At this time I had be-

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come acquainted with the work of Mr. Teale, and I suspected her case might be one of spinal neuralgia. On examination a considerable degree of tenderness was felt near the spine on the right side, nearly opposite to the seat of pain. I recommended a blister to this spot, which was followed by a very great mitigation of the disease, and it was finally removed by keeping up an irritation at this point, with tartar emetic ointment. Remedies had formerly been used to correct the disordered state of the bowels and stomach, as well as the slight fever which was present, but with indifferent success. The same remedies now operated satisfactorily, and the health of the patient gradually became established, though there was a disposition to a return of this disease for several months. The lady now enjoys good health, though her friends insisted upon it at the time that she had the consumption, and were frequently quite angry with me because I would not believe with them.

I have met with a number of cases of disordered digestion, attended with soreness of the upper cervical vertebræ, which I thought had a very considerable influence over the disease, and sometimes seemed to be the principal cause of it.

A gentleman about forty-five years of age consulted me about two years ago, on account of a disordered state of the stomach, attended with a great deal of palpitation of the heart. He was greatly troubled with water-brash, tongue furred, bowels irregular, occasionally some fever. He had been troubled with the most of these symptoms for seven years, more particularly the palpitation and water-brash. When I first saw him, the palpitation was alarming, and I had little doubt that he had an organic affection of the heart. I examined the cervical vertebræ, and found them very tender, particularly the upper ones. I concluded to adopt the plan of blistering the spine, together with alterative doses of blue pill, and a tonic of

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pulv. columbo. On seeing the patient two or three days after, I had the satisfaction of learning that the palpitation and water-brash had nearly disappeared immediately after the blister had drawn. His health rapidly improved from this time without interruption, except an attack of ague and fever a short time afterwards, which was cured by quinine.

This patient had, during his protracted ill health, been under the care of several respectable physicians at different times, and doubtless had received substantially the same treatment prescribed by myself, with the exception probably of the blistering. This was probably a case of deranged function of the great sympathetic nerve, or the spinal nerves connected with it, by which several organs dependant on it for nervous influence, became deranged in their functions.

That distressing disorder called the sick-headache I have good reason to believe is often an affection of the same part of the nervous system. When persons have been habitually subject to this complaint, I do not recollect an instance that has fallen under my observation which did not present this symptom. I have treated the complaint with blisters and irritants to the nape of the neck, very generally, and I must say, that the success of this plan has been extremely gratifying, not merely affording temporary relief, but effecting a radical cure.

I will relate a few cases in illustration. A married lady of twenty-six years of age, had been for several years severely afflicted with what she called blind headache. It came on once in a few months, commencing with sickness of the stomach, headache and giddiness to such a degree, that she was obliged to remain in bed constantly, and every attempt to raise herself in bed induced blindness for the moment. The remedies formerly used had done but little to alleviate the complaint, and she had come to the conclusion that there was no remedy for it. I accidentally

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saw her while confined with one of these attacks, and inquired into her symptoms, particularly whether there was any soreness in the neck. I found there was a great degree, and on particular inquiry learned of her that she was habitually subject to a slight stiffness of the neck, not however to such a degree as to excite much attention. Under these circumstances I strenuously recommended a blister to the nape of the neck, and without any other remedy the disorder abated immediately, and she was well of her complaint by the time the blister had healed. I deemed it advisable to use stimulating liniment to the neck for some time as a precaution against a return of it. This occurred two years and a half ago, and the complaint has never returned.

A second case of what I consider of the same character, but with somewhat different symptoms, occurred in the person of a young gentleman of about twenty-two years of age. He had had a complication of disorders from his earliest years, disordered digestion was perhaps the most prominent among them. I was called to him in an attack of cholera morbus. The violence of the disease had abated when I arrived. I merely prescribed a few grains of calomel combined with opium, and left him. I saw him next day, and inquired of him whether he had felt any stiffness or soreness of the neck previous to this attack. He told me he had to a very great degree, and that he was habitually subject to it; and on inquiry informed me that he was occasionally troubled with sick headache, when this soreness of the neck was aggravated. I advised him to make trial of a blister to that part. His friends on being informed of what he was about to do, and not being able to see exactly how the nape of the neck could have any thing to do with his stomach, tried to dissuade him from applying it. He however in spite of ridicule made trial of it, and very much to his satisfaction. He informed me a few days after, that he never recollected the time when

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he felt as well. His digestion was much improved, and he expressed himself as being a new man; and when I last saw him his good health continued.

A third case happened in the person of a married lady, and was attended with symptoms so nearly resembling the first I mentioned, that I deem it hardly worth while to relate it in detail. Suffice it to say, that blistering had the same happy effect as in those related. She was, however, attacked with intermittent fever immediately, which I attributed to the care, fatigue and anxiety which her situation unavoidably brought upon her, being surrounded by a sick family.

I have met with one instance in which a very obstinate and protracted diarrhea appeared to be kept up, if not first caused, by inflammation or irritation of the spinal nerves. This was a lady of about forty-five to forty-eight years of age. When I saw her she had been laboring under diarrhea for about six weeks, attended also with hemorrhage from the uterus. The stomach was extremely irritable, and there was present also an irregular intermittent fever, not very distinctly marked. She had been treated with anodynes, (Dover's powders combined with soda and mucilages,) which appearing to me a judicious plan, I was inclined to also. It did not meet my expectations, the stomach being too irritable to bear any thing but mucilage, and very little even of that. The disease did not seem to abate at all under this treatment. I cast about for some better plan of treatment. I discovered considerable tenderness at the pit of the stomach, and applied leeches there. The irritability of the stomach and tenderness abated considerably; the diarrhea was a little checked. At a subsequent visit my attention was directed to the spine in consequence of some complaint of pain there on turning in bed. I examined it, and found a great degree of soreness between the shoulders, in the loins, and in a less degree through the whole course of it. I immediately de-

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termined to apply cups, first to the loins and afterwards to the shoulders. In a very short time after drawing blood from the loins, the pain subsided, and the next morning I had the satisfaction of learning that the hemorrhage had nearly ceased, and the diarrhea considerably abated. I now applied the cups between the shoulders, prescribing no remedies but mucilages during this time. In the course of twenty-four hours from this time the patient was decidedly convalescent, all the symptoms of disease had abated very much. The Dover's powders could now be borne with advantage, and she could take some nourishment. In a few days, the debility being very great and slight symptoms of intermittent remaining, I prescribed quinine, under the use of which she regained her health in the course of a week or two.

In the American Journal of Medical Sciences for August 1833, there is a paper by Dr. John K. Mitchell, in which he details his views of the character of rheumatism, acute and chronic, together with the plan of treatment he pursues for the cure of it. He considers this disease as arising from inflammation of some portion of the spinal cord, or its envelopes, and applies his remedies accordingly. If the upper extremities are affected, he examines the spine in the region where the brachial nerves are given off, and he generally discovers a tenderness at that part, and he draws blood freely with cups and leeches. When the lower extremities are affected, he pursues the same plan with regard to the lower part of the spine. The success of this treatment he represents as most flattering, and details several cases in proof of it. I have not been able to test this in a very satisfactory manner, though from what little experience I have had in the complaint, I am convinced of the correctness of his views. I will relate two or three cases in illustration.

A married lady thirty-two years of age, was attacked with rheumatism in the knee joint, accompanied with

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fever of the intermittent type. Although she complained of no pain in the hip or back, I was induced to examine this region. I found a considerable degree of tenderness and pain on pressure, beginning at the upper part of the sacrum on the side affected, and following the course of the nerves towards the thighs. I made use of the appropriate remedies for intermittent fever, applied leeches both to the knee joint and to the back, and also cups to the back repeatedly. I was not very successful in drawing blood either with the leeches or cups; but the little I did abstract, particularly from the sacrum, was of the most decided benefit, alleviating the pain and abating the inflammation of the joint considerably; and had I been able to obtain blood freely, I have no doubt a speedy cure might have been effected. As it was, it afforded only partial relief, and the disease was protracted several weeks, though in a mitigated form.

Case 2—Occurred in a man about fifty years of age. It was of a different character from an ordinary rheumatism; it was more of a nervous than of an inflammatory nature. While he was dressing himself one morning, he was suddenly thrown upon the floor by a shock like that of electricity, passing from the left sciatic nerve down the thigh and leg to the foot, attended with the most acute pain; which however passed off very soon, leaving only a weakness of the limb, and slight tenderness along the course of the nerve. The foot and ankle gradually became painful and swelled, which increased to a great degree, so as to confine him to the house, and part of the time to bed. I do not know what treatment he received previous to my being called, except that he had applied a blister to the foot, which did little if any good. At the time I saw him, which was six weeks from the attack, he did not seem to be aware of any pain or tenderness about the hip or its vicinity, until I directed his attention to it. On examining along the course of the ischiatic nerve,

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however, he complained of pain and soreness and a sort of numb sensation through the thigh and leg. I was satisfied the disease had its origin in the sciatic nerve, and advised a blister to be applied there, to which he consented after some objections. The application of the blister was followed by very great relief to the foot. I advised stimulating liniment after the blister had healed, and there remaining considerable weakness of the limb, as well as general debility, carbonate of iron was prescribed, which effected a perfect cure in a short time.

Case 3.—A young man several years ago was attacked with rheumatism of the knee joints. He suffered severely from the pain and inflammation, and he was a long time confined. He however at length partially recovered, but has been to the present time subject to repeated attacks of the disease, and is just now recovering from one. He lately came under my observation. I can give no account of his former treatment, but I inquired particularly into his symptoms on the first attack, and he informed me he suffered extreme pain in the loins, coursing down the hips and thighs in the track of the nerves. This pain of the back he said was the commencement of his disease, and was very distressing. It was always present in a greater or less degree whenever the disease returned, and left a permanent weakness of the back. When I was called to him he was suffering from rheumatism of the shoulder and elbow joints. On examining the spine between the shoulders, and up the cervical vertebræ, I found them very tender, with a good deal of soreness extending up the muscles of the neck. I made use of cupping between the shoulders, which afforded sensible relief immediately, and a repetition of it in a day or two after, followed by a blister and stimulating liniment, abated the disease still more, and now under the use of tonics he is recovering apace. The same treatment was applied also to the loins, with the exception

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of using dry cups after the first application. I was induced to try dry cupping from observing that though I obtained a very small quantity of blood from scarifying, yet the relief it afforded was considerable — more than could be supposed to result from the mere abstraction of blood. One effect of cupping undoubtedly is, that in addition to the abstraction of blood, the circulation is drawn to the surface, and thereby the internal parts are relieved from engorgement.

Rheumatism is a disease upon which the ordinary treatment heretofore pursued has a very uncertain effect. General depletion, followed by anodyne sudorifics, frequently cures it, and they almost as frequently fail. Bleeding always relieves it for a short time, but it often returns with increased vigor; and if this general depletion is carried to any great length, it is decidedly pernicious. The acute pain of rheumatism is the result of high nervous irritation, and inflammation of this character does not bear excessive depletion. I cannot but think, from the little experience I have had with the present plan of treatment, that if generally adopted in rheumatism, it would be found successful.

In almost if not quite all the diseases of the class I have noticed, it will be found important and necessary, in order to retain the advantage gained by local depletion, to administer tonics, particularly quinine, or some other form of bark, for they appear to partake very much of the character of intermittents, and many times in the progress of convalescence will break out into an open form of that disease.

Candor obliges me to confess, that I have sometimes, and not unfrequently, met with disease apparently dependent on spinal irritation, in which this mode of treatment has failed; sometimes affording a trifling mitigation, and sometimes none at all.

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We observe in most fevers, symptoms clearly indicating a primary derangement in the whole nervous system. The first effects of miasms probably is to depress the energies of the nervous system. During this depression all the functions of the whole system are performed with languor. This is soon followed in the majority of cases by a corresponding excitement, first of the nervous system, then of the circulation, and quickly by derangement of all the secretions. Here we see a regular chain of events developed, first in the nerves, next in the blood vessels, then in the various organs to which the nerves and blood vessels are distributed. Now it appears to me, that in the treatment of fevers we should keep constantly in view this derangement of the nervous system as the primary link in this chain of causes and effects. We have been accustomed to look at the morbid state of the circulation and secretions, as perpetuating the continuance of fevers; whereas it appears to me reasonable to suspect that these derangements are merely effects of the excitement of the nervous system, which should if possible be allayed, when we might look for an abatement of the irregular action of the blood vessels and other organs. What makes me believe that the excitement of the nervous system perpetuates the disease is, that first of all we commonly have pain of the head and back, particularly the loins, which generally suffer most; and though as the excitement becomes diffused and general, the pain abates, if we examine the spine this part remains tender, with generally a sense of stricture about the abdomen opposite the part affected, and also a more remarkable derangement of the excretory organs situated in the neighborhood, than of the other organs of the body. This is to be accounted for from the fact that the vertebral ganglions furnish a portion of the nerves of those organs in their neighborhood.

I have not had an opportunity to test the correctness of this theory fully, but from the very partial trial I have

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made of a practice based upon it, my confidence in it became increased. I have in a very few instances applied cups to the spine in fevers, when there was considerable pain present in that region, with manifest relief, not only to the local pain, but to the symptoms generally. In chronic agues and fevers, I have frequently made use of strong irritants, (horse-radish leaves) to the spine, previous to the paroxysm, and with considerable success; often preventing its access. These irritants probably acted by drawing the circulation to the surface, and thereby preventing engorgement of the spinal marrow.

I feel confident that if the attention of physicians was more particularly directed to the spinal nervous system, the mode of treatment of a great variety of diseases would be much improved.

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ART. VI. *Address delivered before the* TOMPKINS COUNTY MEDICAL SOCIETY *in* 1834, *by* DR. A. CHURCH, *President of the Society.*

[Communicated by the Tompkins County Medical Society.]

GENTLEMEN,

The renewed expression of your confidence and consideration calls for my warmest acknowledgements, and it is a source of unfeigned regret, that my ability and industry fall so for short of the just expectation of the members, in the performance of one of the most important duties of the presiding officer of this society. Some apology however must be found in the circumstances in which I am placed, being occupied in avocations less favorable to the philosophical contemplation of subjects strictly professional than most of my brethren.

The subject of Quackery having been presented to the different County Medical Societies for their consideration, by our State Medical Society, I have thought proper to make some remarks upon it at this time, together with such observations as naturally suggest themselves.

A desire to be thought wiser than we really are is a weakness in the human character, from which few are entirely free. When this is coupled with an undue love of gain, it frequently urges men to the practice of the most abominable deceptions, not only in our own profession, but in almost all others: though it may be doubted whether there is another in the whole circle of arts or professions in which deception can be so easily practised, and with impunity to the perpetrator, and calamity to the unfortunate subject of it, as in our own. Hence it is, that the world teems with men who make it their business to practice deception of the grossest description, upon simple and credulous people. Nor is it the simple and credulous alone that suffer from these impostors: men of naturally strong minds and cor-

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rect understanding, when their intellect becomes weakened by disease, and discouraged by the want of success of regular practitioners, frequently as a last resort, place themselves under the direction of these wretches, as devoid of knowledge as of moral principle.

To one accustomed to reason upon things, it appears at the first glance incredible, that men of good understanding in the general affairs of life, should be so easily imposed upon by those whom they know to have no opportunity to acquire the knowledge they profess, and whose want of integrity is generally so notorious as to preclude the slightest confidence in matters involving any pecuniary considerations. Yet every day teaches us that such is the fact. Every body knows that no one can acquire any handicraft trade without an apprenticeship and practice. Yet here is a profession, to practise which, requiring the utmost stretch of human intellect, may, in the opinion of many persons, be exercised by the most ignorant, and without the least preparation or practice. What an inconsistency! Such an idea entertained upon any other subject would be considered a proof of insanity.

If we examine into the causes which have produced this state of things in regard to the medical profession, we shall find them numerous.

In the first place, the imperfection of our art, and the obscurity in which much of it is still involved, renders it impossible for the most enlightened of our profession to be always either successful in the cure of diseases, which are really curable if correctly understood, or to give an unerring prognostic as to the result of individual cases, whether curable or not. Hence it is that many, forgetting the imperfection of all human knowledge, taunt the profession as one altogether of chance, and affect to believe that an ignorant man may have as good a chance of being successful as the most learned and talented.

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The affectation of mystery and concealment is extremely captivating to a large portion of people, and the profession of medicine perhaps opens a broader field for the display of this accomplishment than any other; and as a matter of course, it is the first and most important acquirement of the quack. Indeed with a large proportion it is almost the only acquirement. It is a perfect shield against detection. It answers his purpose as well or better than the most profound skill.

The peculiar state of mind under which patients with chronic diseases mostly labor, is especially well calculated to favor the deceptive pretensions of quackery. After having exhausted every expedient which an ingenious practitioner can devise, with little or no encouragement of farther relief, the confident and boasting promises of a quack fall upon the ear of the sufferer with peculiar sweetness, and it is no difficult matter for him to excite hopes, even where reason whispers the patient that there is no hope.

It cannot be denied, that the rash and hazardous experiments of the quack have sometimes succeeded in restoring patients to health, after the skilful practitioner had abandoned them as incurable; and one such instance of success will establish for him a reputation which years of skilful and successful practice cannot do for a regular practitioner.

In such cases, the charlatan hazards nothing. If the patient dies under his hands, it was his fate; the regular doctor had given him up. And if he succeeds, the affair is blazoned abroad by scores of gossips, and he at once becomes a performer of miracles. Such is the history of the rise of hundreds of quacks.

A prejudice against the use of remedies from the mineral kingdom, and a notion prevalent that every district of country produces vegetable remedies adapted to the diseases incident to it, has had a strong tendency to per-

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petuate and encourage quackery. Hence the most of this tribe denounce in most ribald terms, the use of "apothecary medicines," while at the same time perhaps they are using the most powerful minerals with a reckless hand.

But one of the fruitful causes of the prevalence of quackery may be found in the profession itself, and that is the little preparation necessary for a young man to enter it. Though the laws of our state and of various other states, have for the last twenty years been gradually increasing in their demands for preparation previous to entering the profession, still they fall far short of what is requisite to make an accomplished physician. Under our present laws, a young man who can read English, can in the short space of three years arrive at the highest medical honors that can be conferred. And it has not unfrequently happened, that a lad too untractable to learn a handicraft trade, after being dismissed from his probation at a tailor's, to that of a shoemaker with as little success, has been received into a physician's office, and in due course of time, without the least literary acquirement, aside from being barely able to read the English language, has received the honors of the medical profession. Now I believe every candid man will say at once, that under such regulations we shall stand a chance to have a great many more quacks practising with licences than without. I would not say that all who enter the profession under such disadvantages would be found ignorant and unphilosophical practitioners, but it is undeniable that a great many, if not a majority, must be expected to be so. There are many illustrious exceptions. A few of our most distinguished professional men in the western part of our state, have begun under these disadvantages; but a naturally inquisitive and philosophical turn of mind has surmounted the disadvantages of want of education. Very few men naturally possess a philosophical mind. It is acquired by culture in most cases, and it is for the pur-

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pose of habituating the mind to inquiry that a previous education is necessary. Let two young men of equal natural capacity commence the study of a science, the one habituated to study, the other knowing little else but his native language, and an immense difference will be seen in their progress. It will require the one uneducated nearly three years before he learns how to study. He knows no more how to reason upon what he reads, than an unpractised person knows how to perform on the most difficult musical instrument. If he plods through his regular course of three years, he commences practice knowing nothing except by rote, and without his Vade Mecum, or other book of reference, he is lost, and without a guide. Now it cannot be expected that such a man should be remarkably successful as a practitioner. The most simple diseases, perhaps, in a majority of cases, he might manage, provided he were sent for in season, and began the treatment right; but as soon as anything complex was presented to him, he would probably do more harm than good.

I have sometimes thought physicians were influenced by very improper motives in receiving ignorant and idle young men into their offices as students, partly from the idea that it adds consequence to them to be surrounded by a number of pupils, however unpromising, and that it adds much to their influence and practice by attaching to them the connexions and friends of such young men; for the purpose also of doing the drudgery of the practice, especially that which is not likely to prove lucrative, and which still they wish to retain for the purpose of keeping up a great show of business, which is of some importance: and, finally, of establishing them ultimately in their neighborhood, for the purpose of extending their reputation abroad, and adding a more lucrative business from their frequent calls for counsel. Whatever the motive may be, the encouragement of such uneducated young

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men generally has a most mischievous influence, and I believe it is a more fruitful source of quackery than all others.

For this reason then, quackery will undoubtedly thrive to a greater or less extent, so long as men love to have this kind of deception practised upon them as well as they do at present. I am decidedly of opinion, that the surest way to lessen the evil is to correct abuses in the profession itself. Therefore, instead of vainly attempting to crush it by legislating directly against this set of men, let us try to elevate the profession so far above them that the world may see our superiority in a stronger light.

If the profession were better educated, I apprehend that there would be less of that class of diseases prevalent which make the principal business of the quack. I believe it is hazarding little to say, that a physician not properly prepared for his calling, will be likely to have many more chronic diseases follow in the train of his practice, than one fully competent to discharge the duties of his profession. If he does not sufficiently understand the character in the commencement, to treat them successfully, the chance of his doing so in the chronic state is still less. The patient applies perhaps to another and another of the faculty, and if unsuccessful he next goes to the herb doctor. Perhaps I ought to mention another cause of the prevalence of quackery and that is the idea generally prevalent, that they use only vegetable remedies, or roots and herbs, and consequently, if they do no good they will do no hurt. To medical men it is needless to urge the fallacy of this idea; but it is one that has obtained deep hold on the community—even in that very enlightened part which makes laws for us. One would hardly suppose that men of common intelligence could be ignorant of the fact, that the vegetable kingdom contains some of the most deadly poisons, especially as we see such frequent records

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in the weekly periodicals, of death by mistaking one plant for another.

We have seen how futile is legislation against that class of men denominated quacks. They have too strong a hold on the sympathies of a large class of community—most of them ignorant to be sure, but many of them respectable, and even influential. It has only served to bring these sympathies into active exercise, and cause them to be looked upon as an oppressed and persecuted set of men; as men who are useful in their vocation: and instead of creating a distrust of them, it has manifestly operated to increase the number and devotedness of their adherents. It is therefore my belief that if such a class was unknown in law, there would be fewer of them.

Instead then of petitioning our Legislature to pass laws restraining these men, let us petition them to pass such a law as would be calculated to lessen materially the diseases that more commonly fall into their hands. And this I think may be done by requiring a more thorough course of preparation on the part of the physician, before he is allowed to practise on his own responsibility.

Instead then of the present meagre requisitions of the law, is it not advisable to enlarge them in regard to preparatory study, and place them on a footing with those of the profession of law? I can see no reason why the knowledge of a medical practitioner should not be as extensive, his philosophical researches as profound, and his attainments in every respect as great, as those of any other professional man. I am sure, no one acquainted with the duties of our profession, will say that the difficulties or importance of arriving at just conclusions, are less in ours than either of the other professions. It is ignorance, gross ignorance on the part of our legislators, that has thus placed our profession in the back ground. I do not know but many would think my ideas bordering on the extravagant in regard to the subject of preparatory education,

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but it appears to me, that either a regular course of classical studies in any of our colleges, or at least four years devoted to the various departments of literature and philosophy, is not too much to require of a young man previous to the commencement of professional study. In the course of this time, if he has exercised proper diligence, and that rightly directed, he will have obtained a respectable acquaintance with literature, and become tolerably well grounded in the elements of the various departments of philosophy: his mind will have acquired such a degree of discipline, that he can commence and pursue to good advantage, the study of any science; he can far outstrip another of equal natural abilities, who has been deprived of these advantages. If after enjoying these advantages he were to spend three years in the study of medicine, and at the end of that time spend one year as a house pupil in a hospital, or what may perhaps be better, in practice under the direction and responsibility of a judicious practitioner of experience, his education would be as nearly complete as could be reasonably demanded; and he might set out on his professional career with confidence in his ability to meet most of the emergencies of the profession. He would be placed above the necessity of resorting to those little shifts to conceal his ignorance, to which men of inferior attainments are so constantly obliged to resort, and to do which, as well as to wheedle themselves into the good graces of the nurses and old women, draws so strongly on their mental resources, as to leave them no room for professional improvement. This gentlemen is no fancy sketch. It is drawn from life, and this state of things will exist until our laws are so framed as to show young men that our profession was designed as well to benefit mankind, as to afford them the means of an honorable livelihood. Our profession has become numerous far beyond the wants of community, and this in itself has a tendency to retard the ad-

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vancement of medical science. Not but what there should be a sufficient number to excite an honorable competition, but when a profession becomes so numerous, as that a large proportion must be idle a considerable part of the time, it follows that they do not have opportunity to be in the habit of constant observation of diseases, which is necessary to acquire the tact of experience. By requiring a suitable preparation before commencing professional study, and extending the time of professional study itself, or by requiring some time spent in actual practice, before granting licenses and diplomas, a considerable proportion would be deterred from entering the profession, who now do so because it is the shortest road and least expensive, to any kind of employment above that of a common laborer.

In addition to the studies commonly pursued, it might be of essential advantage to make ourselves acquainted with the indigenous vegetables of our country, so that we might be able to select such as are really useful, and thus in part at least, stop the clamor of those who are sticklers for roots and herbs alone as remedial agents. Though this may seem of minor consequence, it is always advisable, to humor the prejudices of people, as far as can be done with safety and propriety; for by doing this a great influence is gained over them.

I have thus, gentlemen, given a rough draft of my ideas upon some of the causes of the prevalence of quackery, and the best means of lessening its evils. I am not opposed to legislating against the practice of it because I do not think it just to suppress it, but because experience has proved it perfectly useless, and even worse. All former legislation has been so, and for the most part where enlightened and intelligent physicians are found, quackery has but a short sway.

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ART. VII. *Address delivered before the* TOMPKINS COUNTY MEDICAL SOCIETY *in* 1835, *by the late* DANIEL D. PAGE, M. D., *President of the Society.*

[Communicated by the Tompkins County Medical Society.]

GENTLEMEN,

In considering how I might best discharge the duty imposed upon me by the by-laws of this society, on the present occasion, in such a manner as to make some small return for your flattering notice in electing me to the station which I now occupy, it struck me that some remarks upon medical societies in general, their objects, ends, and duties, and upon our own in particular, and its means of usefulness might not be ill-timed; and though they may be hasty and crude, and ill-digested, if they do but awaken in your minds that attention to the subject which its importance demands, it will be in your power to give to these suggestions, a form, a force, and an activity, which may redeem the time of the present hour from utter waste.

The preservation of health and the cure of diseases, have always been objects of high consequence to human happiness; and from the earliest times have been subjects of governmental regulation and encouragement. In all civilized countries the healing art has been cultivated with more or less success, and its proficients have been much sought after and honored: and even among savages the "medicine man" holds a high rank, and is esteemed a sacred personage. In our own country the practice of medicine is regulated by laws, which are designed to secure to the community the services of competent, well taught practitioners, and to the profession that respectability and standing in society, which men of such character deserve. The benefits of these laws are designed to be

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mutual. They do not constitute a monopoly for the advantage of physicians, nor should they ever be so considered. Neither do they intend to make physicians the unrewarded servants of the public. Now the structure of our medical law is based upon the institution of medical societies — associations for mutual improvement, whose importance will be apparent from a moment's consideration.

Medical science is a collection of facts and observations, with regard to the animal economy, in health and disease, and the various and multiplied modifications of its pathological actions, produced by remedial means; all so arranged and systematized, as to present the results of universal experience. It is only from the most ample and repeated experiments, so varied as to avoid all chance of deception or mistake, that we can arrive at conclusions on which we confidently rely. All the observations of the most acute practitioner, through a long lifetime, would but enable him to feel his way darkly and doubtingly, could he derive no assistance from the experience of others; and did he never impart of his knowledge to his fellows, his hoarded treasures would perish with him, and (save in his own little sphere) to the present and all future time, he would have lived in vain. By communicating his own experience, and receiving that of others in return, and adding the observations of one, and another, and another, a mass of facts is at length accumulated, from which may be deduced correct principles — such as may be received with confidence, and will guide to satisfactory results.

In this manner much has been already done. Over this chaos of isolated facts, some master minds have shed the light of order and beauty, and right arrangement, and opened up to our view the book of nature, which, but for this master key of knowledge, (multiplied observation) would still be a sealed book to us. Much has been done, and much still remains to be done. Many are the "op-

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probria medicorum" which are yet to be wiped away, before the science can claim to be perfect, or the profession stand up before the world and say, "we have done all that art can do for the healing of your maladies."

In this work medical societies are calculated to afford great help. Indeed they offer far greater facilities for its accomplishment, than any other institutions known to our laws. Far be it from me to decry the usefulness of our *medical schools.* I know and can appreciate their value. But they are designed for beginners. They teach and with efficiency, and to purpose, the known principles of the science. But the years spent there are years of youth and inexperience. We there acquire those rudiments which are to become the seeds of our after growth in knowledge, and it is all important that they be well rooted and grounded in our minds. In medical societies we spend our after life. There are matured the fruits of experience. There we are brought into contact with men, who like ourselves, are learning every day a lesson from nature — learning from that great teacher to verify the maxims of the schools, and the precepts of the books, or to reject them as idle imagination, or inapplicable rules. It is as members of medical societies, that we are brought to feel the insufficiency of our present knowledge and realize the strongest motives for its advancement. When reputation, business and success in life, are awaiting the results of our effort, when the health, and comfort, and lives of our friends and fellow citizens are depending upon our professional skill, surely we cannot want incitements to perfect ourselves in medical science. It is then that medical societies offer us their aid. It is then that they come in to enlighten our path, to soothe our anxieties, and to cheer and encourage us, on our toilsome and weary way.

Another advantage they possess over the schools is, that they are accessible at all times, to the mass of the profession. Their benefits are not confined to the mere student

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and teacher, to the *speculative* class of physicians, but are extended to the *operative, working* members; those to whose hands are entrusted all the active duties, and on whom rest all the essential responsibilities of medical practice. It is for *their* improvement and efficiency that the public are interested. It is for them that the privileges conferred by our medical laws are chiefly designed.

Medical associations are calculated also to promote social intercourse and friendly relations among neighboring physicians—a most desirable result truly. I know not what there is in the nature of our profession which needs produce so much envy, and bitterness of feeling, and party strife, and personal hostility, as to make us a by-word to the world—"when doctors disagree." It certainly tells but little in favor of "poor human nature," that men of liberal minds, and members of a liberal profession, can forget the duties of their station, and put forth all their energies to "bite and devour one another." It is a sort of moral cannibalism—a hungering and thirsting after the bone, and sinew, and life-blood, of another's reputation. The wholesome influence of medical societies may greatly abate this evil.

Again, medical societies are calculated to render the profession more useful and amicable not only, but more respectable; to elevate their members in the esteem and confidence of the public. Let a medical society exhibit evidence that it is engaged with ardor in its legitimate pursuits; that it is following out harmoniously the design of its creation; dispensing its benefits among its members, while each is contributing his share to the common fund of professional improvement; and so far as the influence of that society is felt, and its transactions known, public opinion will be drawn favorably towards it, and men will look upon those thus engaged with sentiments of higher regard. The conviction that they are in earnest for the public welfare, will be forced upon the minds

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of the community, and in proportion to the zeal thus exhibited, will be the reward of public confidence. And ought not these exertions to be made? Is it not due to the country, in return for the legal privileges and immunities which medical men enjoy? Was it not contemplated by the legislature which established these institutions and granted these privileges? Is it not expected, by that liberal portion of an enlightened community, which now sustain them?

It cannot be denied, however, that medical societies do not actually accomplish all the good which such associations are capable of doing. If so, the fault must be in the administration of their affairs — in the manner of using the powers belonging to them. It becomes us then, as members of the *Tompkins County Medical Society*, in whose hands are its destinies, and to whom its interests, and those of the community as connected with it, are committed, carefully to inquire, and seriously to consider, what duties devolve upon us, in relation to this subject. It is in our associated capacity that we can do much to advance ourselves in medical science, to correct what may be wrong in professional intercourse, raise the standard of medical character, and attract and secure public attention and confidence. Permit me to make a few brief suggestions.

There is perhaps no one of us, who has not witnessed, within the past year, some interesting case, whose history would illustrate an important principle, or whose result would afford useful practical information. A few such cases, well drawn up, would add much to the interest of this meeting, and perhaps stimulate others at a future meeting, to go and do likewise. If these were made the subject of free and friendly remark, the result would no doubt be useful to all concerned. The impressions left from such discussions, will be deeper than those derived from books; and even when the facts are not so striking,

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the living, speaking witness, will impart to them an additional vividness; and one truth fixed in the mind, is worth a thousand which pass by and are forgotten.

Again, in this age of discovery, we are constantly receiving accounts of new remedies, which are extolled by their discoverers above all former ones. Some acquire but an evanescent reputation, as more extended trial proves their comparative worthlessness; while others are justly taking their places as standard articles, of solid worth and varied utility. The fact that both come to us at first alike recommended, causes us to look upon all with some degree of distrust; and hence many postpone perhaps for years, the adoption of a really valuable means of cure. Now the labor of arranging newly proposed remedies into these different classes, falls upon the practical physician, and at least so far as ourselves are concerned, much of it may be accomplished by this society, If those who have opportunities for trial will but report their successes and their failures, our members generally will much more easily keep pace with real improvements, and avoid being misled by pretended ones.

Another subject to which I would direct your attention for a moment, is that of *American medical botany.* This is comparatively an unexplored, but fertile field of inquiry. Why should it be left almost entirely to the cultivation of the ignorant empiric? We need not subscribe to the doctrine that every country produces the most efficient remedies for its own diseases. This doctrine is undoubtedly more fanciful than true. We must however admit, that the strong prejudice with which the minds of many are imbued, against what is called "regular practice," arises from the belief that we despise our own domestic remedies. It is this belief on which the ignorant pretender founds, mainly, his hopes of success. It is this prejudice to which he appeals as the strong point in his case. It is this which sustains him in his attempted

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inroads upon the profession. I verily believe, could this impression be removed from the public mind, the main pillar in the huge, unsightly edifice of medical quackery would be broken, and the whole fabric would crumble back to its original chaotic elements; and the community would be relieved from the pressure of this incubus. Now, however absurd the results to which this popular impression leads, the impression itself is not entirely groundless. We certainly have too much neglected this subject. We are paying the penalty of our neglect in loss of public confidence, to a limited indeed, but yet to a perceptible extent; and the community is suffering from an infliction of empiricism, unparalleled in the history of our country. If the study of our own remedies will remove all these evils, we surely have strong incentives to engage in it; and he who does so scientifically, will no doubt reap a rich reward for his labors. He must not be ashamed to learn of the ignorant, and receive from the unlearned many an useful hint to guide him in his investigations. Many people now think that we know nothing about this matter, and accuse us of ignorance and prejudice, and interested motives, when we attempt to correct their false notions. But let them see that we have studied the subject, and they will be likely to yield the same deference to our opinions in this as in other matters, which they may give us the credit of understanding. Through the medium of our society we may assist each other much in these pursuits. And shall we not do it? Shall we not attempt to wrest from quackery its most destructive weapon, and rescue from its grasp this fruitful field of potent remedies, which it now claims as exclusively its own—"*by patent right!*" Will not some of our older members become pioneers in this business, and set their younger brethren a laudable example, by imparting of the knowledge which they have acquired in the course of their long experience? The work will then

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have been begun; and they will be entitled to our lasting gratitude.

I need not detain you with further suggestions on this point. Enough has probably been said to convince you that we have open before us here a wide field for exertion. I pass to a single remark upon professional intercourse.

We have a "system of medical ethics," which is printed with our by-laws. Although perhaps it is not every thing that could be wished, it contains some excellent rules for our conduct towards each other. I cordially recommend it to your best attention. Let it be a text book for every member. Let its principles be carefully studied and carried out into all our conduct. Let them be "treasured up in our hearts, and practised in our lives," and we shall no longer be a "hissing and a by-word" for our dissensions. Let us be more punctual in our attendance upon the meetings of the society, that we may see each other oftener. Let us endeavor by all the means in our power to add to its usefulness, in which we have a common interest, and we shall find these to be considerable helps towards this desirable result.

Whatever has the effect to enhance the reputation of an association, must have its weight upon that of the individuals composing it. The associate dignity, influence, and respectability, will be reflected upon all the members, in a greater or less degree. It is an honor to belong to an honored society. And the converse of this proposition also holds true—that the aggregate reputation of any class or profession is made up of the average of individual talent and worth contained in it. It would follow, from these propositions, that the estimation in which each of us will be held, will have a kind of compound ratio, superadding to the merits of the individual, the standard character of the professional community to which he belongs. In proportion then as any one contributes to elevate or

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depress that standard, he raises or sinks himself, in public esteem. It follows also that we have a deep interest in the reputation of each other, as indirectly involving our own.

It is not in the nature of things that all men should have the same degree of acuteness, and tact in the acquisition of knowledge, or its application to the purposes of life. Some must necessarily excel others. Now these ought to endeavor, for the honor of the *caste*, to encourage their halting brethren, and bring them up to a higher degree of attainment. Is there one such in this society? Let him not bury his talent in the earth, or in his own bosom, but put it to usury among his fellows, remembering that intellectual gold grows brighter by using; and imparting knowledge serves to increase our store.

This part of the subject might be drawn out to greater length, with much more of argument and illustration; but as I only proposed to make a few suggestions, and promised that they should be brief ones, I will detain you no longer here. I am fully convinced that it is in our power, operating through the medium of this institution, to advance the interests of medical science, and raise the standard of professional character, and that it is a duty we owe to ourselves, to each other, and to the world around us, to be up and doing in this good work. I believe that the more earnestly we engage in it, the more energy and force we give to our exertions here; the more readily will the public mind yield to the conviction, that we pursue our profession, not merely for the sake of pecuniary gain, but for love of science, and regard for the public welfare. And this society may stand out, where it ought to stand, the most prominent institution in the county of Tompkins, and the community may learn to look up to it with pride, and regard it as one of high authority, and exalted worth.

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If your minds shall have been brought to the same belief, and the conviction shall be attended by corresponding action, the result will be truly gratifying. With you gentlemen, are the *issues of the matter.*

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ART. VIII. *Address delivered before the* TOMPKINS COUNTY MEDICAL SOCIETY *in* 1836, *by the late* DANIEL D. PAGE, M.D., *President of the Society.*

[Communicated by the Tompkins County Medical Society.]

On an occasion like this, gentlemen, it becomes the duty of him who holds the station which I now occupy, to address you on some subject of interest to the medical profession. I crave your indulgence therefore to the present attempt, in some small degree, to discharge this duty. I ask you to listen to a few remarks on the importance to the physician, of habits of observation — of giving a personal and particular attention to all the phenomena of his cases, and to all causes of whatever name or kind, which may affect the results of his practice.

Mental philosophers tell us that we derive all our knowledge from the two great sources of sensation and reflection. In all the departments of science, these constitute the channels, through which their objects are pursued, and their ends obtained. It was by observation and experiment, that Newton was enabled to establish and confirm those great and important truths in physics, for the first knowledge of which the world is indebted to his unparalleled powers of reflection. It was by observation and experiment, that Franklin proved the reality of those brilliant discoveries in electricity, which were first suggested by the reflections of a mind equally ingenious and imaginative. It was by observation and experiment, that the "Father of Medicine" was led to the adoption of those principles which the experience of after ages has approved. Go where you will, explore whatever field you may, *observation* is the master-key to all our knowledge of things about us. From the astronomer, who surveys the heavens, and notes the awful grandeur and harmo-

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nious movements of those majestic orbs which age after age are perpetually whirling and circling there; to the naturalist, who in the humbler walks of creation, studies and remarks the habits and modes of action of the insect or animalcula: all are observing, all are learning. While one exhibits the omnipotence of God in the immensity of his works, and the other the omnipresence of creative wisdom in fashioning a mite and arranging the organs of a vorticella; both have added much to the amount of human knowledge, and of human happiness.

But *we* are called to act in a different sphere. Our duties more directly concern the welfare of our fellow men. It is ours to assuage their pains, and mitigate their infirmities. The common remark, that "without health there is no enjoyment," is no more trite than true. It is our business to restore it when lost, and give rules for its preservation. The most complicated and curious of all the works of creation, we have undertaken to regulate and keep in order. Every consideration, arising from philanthropy, a sense of duty, and the high character and great responsibility of the charge we have assumed, should urge us to unwearied diligence in our inquiries.

We must study our subject. We must make ourselves acquainted with the human system; with the structure and function of every organ, and every tissue, and how each is affected by disease, and influenced by remedies, applied to itself not only, but to each and every other. We are not at liberty, as some have done, to soar away into gardens of conjecture to gather flowers whose sweets may be delightful for the imagination to revel in. Our search should be in the broad fields of fact and observation, for fruits of humbler growth, but more enduring qualities. We are not to theorize, to make hypothetical creations, and establish laws of our own for their government. We are to administer the laws of nature as we find them. Our minds cannot regulate the

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physical constitution of things about us. It is our province not to make them as we wish, but to learn them as they are. We cannot control a single law of nature. We cannot change a single physical action, or vary a hair's breadth the uniform results of given causes. But had we a perfect knowledge of those laws — were we intimately acquainted with all those actions — did we know the precise effects of all those causes, we could so modify and combine them, and appropriate them to our purposes, as to produce results scarcely less useful, and more salutary, than if we were endowed with higher powers, or exercised a more direct control.

Here then is the path open before us which we are to follow. And how various and multiplied are the objects of our pursuit. What intellect can grasp, in all its vast extent, the immense diversity of object, cause, and circumstance, which go to produce, modify, and derange, the unnumbered grades and forms of animal and vital actions; and familiarly acquaint itself with all the signs by which these several modifications and changes are to be recognized and distinguished from each other; and learn to know and apply the certain means of producing all desired alterations in these actions, of combining, exciting, restraining and balancing them, and proportioning them to each other, so as out of the confusion and tumult of disease, to bring the order and harmony of health? Who I say, can do all this? Certainly not the heedless looker on; not he who sees the surfaces of things only, before whose mental vision the images of surrounding objects float mistily and dim; who sees and hears indeed, but notes not, remembers not, nor compares results with causes. But it is the close and accurate observer, whose eye is ever open that nothing shall escape his view, whose ear and every sense are constantly on the alert, to gather in and treasure up that knowledge of all the laws of nature, which can be derived only from the testimony of her

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multiplied operations; who observes facts and circumstances not only, but notes them in all their various relations.

The subjects of medical science are numerous and diversified. In many of them we can avail ourselves of the observation and experience of others, and acquire from books, in a short time, what the labor of years, in personal observation, would hardly have taught us. We can learn the truths which all experience has confirmed, and gain a knowledge of the discoveries which other inquirers have made. But when we come to apply these truths and test the value of these discoveries, we see the necessity of close personal observation. One may ransack all the libraries of the world, he may gather up all the science they contain, he may store away in his intellectual treasure house, all their accumulated hoards of knowledge; yet without habits of close attention and personal observation, he can never become a successful practitioner. I could, were it proper to do so, give a marked example in illustration of this. I could name a man of great learning, a distinguished professor in one of our medical institutions, a professional writer of high and acknowledged authority, who yet can hardly distinguish a disease, or judiciously apply a remedy. Now although he may be skilled in nosological arrangements, and discourse right eloquently on subjects of medical science, and successfully impart instruction, with a vigor of thought and expression perhaps rarely surpassed, yet he is wanting in that skill and tact, which practice and minute observation alone can supply.

I would by no means undervalue *book learning*. It is *all-important*. It lays a foundation, without which no valuable superstructure can be reared. It gives solidity, and firmness, and durability, to all our professional acquirements. It seems to direct our observations, guide our inquiries, and strengthen and confirm the results of

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our experience. A professional reputation, built up without it, will be like the house upon the sand — when tempests beat upon it, it will fall. Let us then dig deep, and lay our foundations strong in medical lore, that we may not be moved. But indispensable as I deem the knowledge to be derived from books, there are subjects of high interest, and deep practical importance, where books, or even the living teacher cannot avail us; which close and unwearied attention, and persevering observation alone can make us masters of. Books cannot teach us, for instance, to recognize and distinguish the variations of which the pulse is susceptible, and for this reason, language has no terms adequate to convey their different impressions. The best it can do is to say they are like this, and that, and the other, when the truth is, they are like nothing but themselves, and must be felt, and compared, and remembered, in order to be distinguished.

Again, the peculiar sensations communicated by the feel of the skin, in its different states, can be known only by personal observation. When a blind man was asked what idea he had of the color of scarlet, he replied that it was something like the *crowing of a cock*. Now he who has never felt the skin of a patient in typhus fever, has about as just a conception of what is meant by the term *calor mordax*, in the books, as the blind man has of colors. But let him once observe the sensation produced, and notice its peculiarities, and (the blind receives his sight,) his mind perceives the vivid impression of a new idea, of which he had before no adequate conception, although he might have heard its name. The same may be said of the sensations produced by other states. Language cannot describe them, for they are ideas of simple sensation, and cannot be communicated to the mind through any other channel.

The hepatic, alvine and renal secretions, a knowledge of which is so necessary in the consideration of their dis-

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cases, can be studied to advantage only by personal observation of their different states. These organs stand in a very important relation, in the very door-way of the system, with the capacity of receiving, and introducing, and transforming into part and parcel of the animal machine, such foreign substances as may be required to form materials for its growth, and repair its wastes. They also form the outlet for whatever has become dead or useless. They are thus endued with the faculty of giving life to inanimate matter, and of removing from the sphere of vitality, the non-living substances of which our frames are composed. They apparently create and destroy, and make and remake our bodies. Their consequence, therefore, in a pathological point of view, can hardly be overrated. Indeed some have gone so far as to make them the hidden seat of all diseases affecting the general system, and which have no other evident local origin—a focus of irritation, to which all febrific impressions are reflected. Be this as it may, their primary, local affections constitute an interesting class of diseases, whether we consider their frequency, their obstinacy, or their fatality. Whether these consist in derangement of function merely, or in organic lesion of whatever character, our best helps to diagnosis must be derived from a careful inspection of the secretions. Of so much consequence do I deem this, that, while I will not say that he who neglects it cannot conduct such cases to a successful issue, yet I do think that he incurs a fearful responsibility, by rejecting the offered testimony of nature, in a case where mistakes may be fatal. But I do not need to multiply illustrations, or cite examples to convice you of the value of personal observation in matters of this kind.

There is another view which I wish to present. Said an eminent practitioner to me a few years ago, "If we can agree what ails the patient, we shall not differ much about the treatment." This just remark I adduce in il-

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lustration of the fact, that at the bedside of our patients the most important, and often the most embarrassing questions to be decided, regard the nature, degree, extent, location, type, &c., of disease, in the case before us. Now in order to enable us to make a right distinction in these several particulars, we should have learned by personal observation to recognize the language of complaining nature, and distinguish and appreciate the signs by which she manifests the character and extent of her sufferings. The principles of diagnosis must have been settled in our minds by previous study. But this is not all that is necessary. Of what avail is it that the diagnostic symptoms of the disease are present, if we do not observe them? To what purpose is it, that the various secretions from the skin, bowels, liver, kidneys, &c., indicate the state of function of their several organs, if we do not regard them? Or of what advantage is it, that we settle principles, if we do not apply them in practice?

Again, there often occurs some latent difficulty, whose existence is not manifested by the most marked signs, and a physician of even ordinary observation may not suspect its presence, till the mischief is done, and the case no longer remediable. When at length he becomes aware of the reality of the danger, how sad must be his reflections at the discovery, that essential circumstances have been overlooked, and important lessons have escaped his notice; while by a more close attention to all the facts in the case, and careful observation of all the less conspicuous symptoms, he might have detected their existence, and obviated their fatal tendencies. Every consideration then, arising from a regard to the welfare and safety of our patients, or our own happiness, reputation, and success in practice, should prompt us to give to all, even the minutest features of each and every case, our best and closest attention.

The selection of the particular remedy best adapted to

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the case, is not always easily made. So various are the qualities and powers of the different articles belonging to the same class, and so diversified the circumstances and combinations of diseased actions of similar character, that it is perhaps never a matter of indifference what particular remedy, of the class indicated, we prescribe. It is only by close attention and personal observation, that we can arrive at a knowledge of the sympathies, and antipathies, and idiosyncracies, and all manner of influences, which affect the individual case, and indicate the precisely fitting remedy: and I do not doubt, that physician will ordinarily be accounted the most skilful, who takes the greatest care to make his remedies "*suit the case exactly.*"

I have time for barely one hint more. The science of medicine is not yet perfect. A survey of all the subjects properly within its sphere, has not yet been completed. There are yet facts to be observed, and principles to be established. There are dark points in its philosophy, over which the light of knowledge must still be shed. It has labyrinths, whose passages must be illuminated by further discoveries. And have we nothing to do in this matter? Have we received from our predecessors and cotemporaries the full enjoyment of all the light and knowledge which the science, now boasts? Do we avail ourselves of the fruit of their labors, and appropriate to our own use the result of all their discoveries? And shall we not do something in return? Shall we not communicate to others the benefits we have received from them? Shall we not so improve the talent put into our hands, that we may transmit it to those who come after us, with usury? The science is progressive—cannot we do something to speed it onward? Its lights are accumulating, its principles are becoming fixed—can we not do something to brighten the effulgence of the one, or deepen the durability of the other? These questions, gentlemen, each of you must answer for himself. But,

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the age of theory and hypothesis, and speculation in philosophy, is past. If advances are to be made, it is only by rigid induction from facts that we can hope to make them. Upon the basis of facts, the whole fabric of our science must be built, or the structure will be valueless. The future architect of systems in medicine, must lay his foundations strong with facts, and erect his whole edifice of the same stubborn materials. He must not attempt to hew or cut them to make them fit each other, or harmonize together in his plan; but he must continue to try them, and study their relations, until he learns to put them evenly and firmly together, with all that unmutilated simplicity of form, in which they were gathered up from the mine of truth, by personal observation. A system framed like this, must stand the test of ages; and can we be content not to furnish a single stone for the structure?

To conclude, let me not be understood to mean, that the members of this society are wanting in attention to the general duties of their profession, or that they are careless in the observation of cases, and appreciation of symptoms; or that they do not distinguish the different forms and varieties of disease, or aptly apply the remedy to the case; nor that they do not contribute a share to the general stock of medical knowledge. But it appeared to me that in some of these particulars at least we were not *zealous overmuch*, and I thought that to remark on some of these subjects at this time might not be altogether profitless. Whether I judged rightly, your consciences, gentlemen, in the one case, and in the other, your recollections of the present occasion, will best testify. To you I submit the matter.

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ART. IX. *On Suicide and its Increase in the Present Day. By* JOH. LUDW. CASPER, M. D., *Prof. in the University of Berlin, etc. Translated from the German by* HORACE B. WEBSTER.

[The ensuing essay has been made a subject of reference and selection in medical journals for many years, but has never been translated into English until now.]

The increase of suicide in the present day is a subject well worthy of public attention. The criminal law has not so effectually repressed this crime in Germany, as in other lands, and the mild practice of our age has again in some countries, for example in Bavaria, and even partly in Prussia, abolished the ignominious sepulture of the suicide. The medical police have, in the present century, first begun to consider this subject worthy of serious attention; and indeed, they dare not remain quiet spectators, while a morbid turn of mind, like this, which impels men to the voluntary destruction of their dearest possession, threatens more and more to increase. It is the duty of the medical police to investigate the causes of such a disease, to examine the circumstances of its developement and of its extension, and thereby to aid legislators in its suppression. The causes of an evil, like that we are now considering, lie deep in the customs, aye founded upon the dispositions of the people; and in proportion to the difficulty of the investigation, must the results be important and interesting. Why, in an age which boasts of its illumination, and its religion, do we see a crime extend more and more among the people — a crime forbidden alike by the precepts of religion and the instincts of nature? What are the mighty causes, the effects of which are stronger than religion and nature?

The investigations in the following treatise will lead us to these causes. I have particularly examined the

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Prussian states, and more especially the city of Berlin, because I wished to rest upon facts, and facts upon this subject, even in the nearest state, are often sufficiently difficult to obtain, and because inquiries of this nature, which are restricted within narrow limits, are generally more accurate, and lead to more correct results, than if extended too widely, where the information becomes uncertain. The sources of my information are first and principally, the police records, an examination of which was, with great kindness and readiness, afforded to me; next the official communications in the publications cited, and especially, for the earlier times, the printed bills of mortality of Berlin. The labor which it has cost the author to collect and compare these scattered documents, will be no surety to him for the value of the work. How often have I rejected them, when more accurate sources would seem to lead me to a better! As they now appear, they are based upon the securest foundations: yet I freely acknowledge, that the conclusions to which I have arrived, where they rest solely on numbers, are only to be considered as approximations, and consequently for the present only have a conditional value. Our subject is every where, in public documents as well as in official records, enveloped in doubt: partly, because the relatives of suicides frequently conceal the deed, and leave the death to be entered under other heads; partly, because the bills of mortality generally are not altogether accurate; and again because many are not discovered; and also because of the many persons found dead, it remains uncertain, whether they have died by suicide or otherwise; and finally, because many attempted and prevented suicides come not even to the knowledge of the proper authorities, much less to the public notice: but which, however, must be taken into consideration in an essay on the propensity to suicide. So far as possible, I have not overlooked these circumstances; and I could specially enu-

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merate the unsuccessful attempts at suicide in Berlin for a period of six years and a half; and have also noticed all the cases of persons found dead. Nevertheless there are undoubtedly well-authenticated facts, contained in this treatise, of such value and importance, that the author flatters himself this essay will not be entirely without interest and value, especially if he thereby direct the attention of others to so highly important a subject, and is the means of inciting abler pens to the production of more valuable works.

"In the year 1817, F. a locksmith at N., REGIERUNGS BEZIRK E, (government circle) in Prussia, the father of four infant children, shot himself. He was the last of *six persons composing a friendly society, based on the principle of suicide.* Three of them had shot themselves in their houses, the fourth on the grave of his wife, the fifth in Eisleben, and the sixth in Mentz. Their society had existed eight or nine years. They every where kept together, and were with each other in public places, and frequently praised the principles of suicide. Their less confident friends found in these opinions only a ludicrous heroism, and paid little attention thereto, until the second or third suicide occurred. The suicides were a soap-boiler, a potter, a glover, a locksmith, residents at N., a brazier at Mentz, and a tinsmith at Eisleben. The two last had previously worked as journeymen at N."* To this official communication we annex a similar account published in several respectable public journals. In Paris there had recently been formed a "Society of the Friends of Suicide," which was composed of twelve persons. Their names were annually, by their rules, to be put into an urn, and the name of the person determined by lot, who should,

* Communicated to the "Beiträgen zur Erleichterung des Gelingens der practischen Polizei," edited by Police Counsellor Märker, Berlin, 1r. 1823, No. 11, 11 Sept. 1823.

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in the presence of the rest, take his own life. Every member of this society must, in the first place, be a man of honor; secondly, he must have had experience of the injustice of man, of the ingratitude of friends, the perfidy of a wife or mistress, and lastly, since he attained the age of majority, he must have had a certain, insuperable void in his soul, a dislike to every thing, which the world affords.

There have not been wanting, from the earliest times, philosophers, who have defended suicide, and from the Stoics to Donne, Gildon, Robeck and Rousseau, we are very often reminded of the melancholy fact, that men, by wild speculations, arrive at the most opposite conclusions; and the most unnatural opinions are maintained as the surest and most sacred doctrines. Even history informs us of whole nations, by whom suicide under certain conditions was regarded among the highest and most ennobling of human duties,—and sects, Christian sects, such as the Circumcelliones, Phillippones, and Raskolnikes, who united formally upon suicide, and commanded the commission of it unconditionally upon their members, while they also compelled others to follow their pernicious example. The Phillipones formerly assembled in Russia, in communities, consisting of four to five hundred persons, and burnt themselves alive in their barns, for the sake of the pure doctrines of Christ, rather than embrace the obnoxious tenets of the Russian church.* The Raskolnikes, nearly allied to the last mentioned sect, are extraordinarily inclined to suicide. They always ask, when, where and who of their number have burned, or in some other manner destroyed themselves. If old men and old women see a house or a room which particularly pleases them, they say, would to God we might be burned up here! and tears of joy glisten in their eyes. They

* Berliner Monatsschrift von Gedike und Biester, 1799, Juni p. 418.

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compel those who are desirous of joining them to undergo a strict fast of forty days, &c.†

All these societies, however, excite emotions of pity, when we reflect, that they are founded upon religious errors. But it was reserved for our age to see societies arise, like those above described, which inculcate self-destruction from mere disgust of life; and would cast off life when it does not afford them every happiness of which they had dreamed, as we would cast off a garment which has become faded and thread-bare.

Complaints are made on all sides of the increase of suicide in the present day. Phenomena like the aforesaid societies, and others of a similar character, as infanticide, with which the public journals are now so frequently filled, were formerly unknown, but are now of every day occurrence. The history of the young Jerusalem, which fifty years ago excited the deepest emotion throughout Germany, is so frequently repeated at the present day, that we are accustomed to read such narrations in the journals, next to accounts of inundations and fires; and our novelists and tragic poets have for a long time been compelled to seek out other incentives to pity. The medical profession, which has been of such essential service in the investigation of the natural causes of the morbid aberrations of the mind, cannot, it seems to me, remain quiet spectators of so increasing a destructive mental propensity; and in this point of view, its relation to medical police, may the following treatise, which has especial reference to suicide in Berlin, be justified.

It is truly gratifying to the author, to be able at the commencement, to refute an assertion made thirty-six years ago, in a work of much authority, and which in no slight degree has contributed to bring Berlin into worse

† Ibid, 1802, August, page 100. For the latest account thereof see Stäudlin, Geschichte der Vorstellungen und Lehren von Selbstmorde. Gotting. 1824, 8vo. p. 110; ib. 266.

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repute in this respect, than it deserves. The celebrated *Berliner Monatsschrift* of Gedike and Biester, just cited, once asserted* that the annual number of suicides in Berlin was greater than in other European cities. How exaggerated this statement is, even at the present day, notwithstanding the far more unfavorable proportion of suicides than then existed, will be shown in the progress of this treatise. In comparison with the cities of the Prussian states, Berlin has naturally the largest number of suicides, because no city of the kingdom is comparable with it in greatness, size, population, refinement and luxury; and none attracts so many strangers, who affect not imperceptibly the lists of our suicides. It is only on account of the preponderance, which Berlin throws into the scale, that the province of Brandenburgh exhibits a more unfavorable proportion of suicides, than any of the other ten provinces of the state, as is shown by the following table, which I have compiled from official documents,† and wherein the proportion of suicides to every one hundred thousand inhabitants is calculated.

No. of Suicides in the ten Prussian Provinces in 5 years.

	1818.	1819.	1820.	1821.	1822.	Suicides in every 100,000 inhabitants.
Brandenburg, ...	136	198	171	186	213	14
Saxony, ...	122	129	159	142	95	10
Silesia, ...	161	192	163	174	233	9
East-Prussia, ...	53	67	57	65	71	7
Pomerania, ...	44	48	45	39	61	7
West-Prussia, ...	26	50	20	43	30	6
Posen, ...	29	38	33	51	56	5
Cleves and Berg, ...	43	44	41	35	37	4
Westphalia, ...	27	35	26	37	41	3
Lower Rhine, ...	9	24	18	23	22	2
	650	825	733	795	859	

* 1788. XII. p. 200, "Betrachtungen über die Berlinischen Selbstmorde." This statement was at the time refuted in the same journal, and proved to be erroneous. Nevertheless foreign writers have frequently repeated the remark. † Vide Märker, ut supra, 1824, pp. 63, 69, 71, 159 and 175.

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During these five years 3862 suicides have occurred in the whole Prussian state. Certainly an appalling result, and so much the more, as notice is here taken only of those cases which are officially communicated, and completely effected, while in addition to these, no small number remain concealed, unknown, or entered under false heads, e. g. under the head "drowned," or "found in the water."

If we divide this number of 3862 suicides among the population of the whole kingdom, we shall have about seven suicides to every 100,000 inhabitants. The remarkable disparity between the provinces in this respect is shown by the last table, which on this point is not uninteresting. The province of the Lower Rhine is distinguished for the least number of suicides, as are also the western provinces generally: then follow in unfavorably increasing proportions, Posen, West Prussia, Pomerania and East Prussia. Silesia is indebted to her numerous manufactories, and her mountains, for the precedence which she here takes, and is exceeded only by Saxony* and Brandenburgh. This last province, however, exhibits an unusually unfavorable proportion compared with the other parts of the kingdom, since it has just twice as many suicides, as the total of all the cases in the other provinces, (14 : 7.) This melancholy superiority which has become so perceptible in the last decennary, is naturally attributed to the metropolis, while, as we shall show, the number of suicides in Berlin has most astonishingly increased. Moshen gives for seventeen years, from 1758 to 1774, among 81133 deaths in Berlin, only 45 suicides,† being about two to every 100,000 inhabitants. Besides, there were during this

* It is stated by *Bainconi*, a counsellor of Saxony, in his Letters on Germany, that an evil existed in Saxony, which they had never been able to extirpate, to wit, the propensity to suicide. Vide Osiander on Suicide, etc. Havover. 1813, 8vo., p. 304.

† Samml. merkw. Erfahrungen, den Werth und den Nutzen der Pockeninoculation u. s. w. Berlin 1776, 8, 2tes und 3tes Stück, 6te Hauptabelle.

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period only 90 men drowned and sixteen found dead. If we consider the greater part of these as suicides, it increases the proportion, at the highest, only from four to six suicides in 100,000 inhabitants.

How different are the results at the present day! The following table in which I have collected for three decennaries the number of suicides and of accidental deaths (including those "drowned," "found dead," and "found in the water,") and the total of all the deaths in Berlin according to the results of the official lists, may give us an explanation* thereof.

Number of Suicides and Accidental Deaths in Berlin in thirty years.

Years.	Suicide	Died by accidents	Deaths.	Years.	Suicides	Died by accidnt	Deaths.	Years.	Suicides	Died by accidnt	Deaths.
1788	8	21	4914	1799	7	53	5590	1813	40	74	6985
1789	3	22	5990	1800	12	26	5589	1814	34	83	6566
1790	7	31	5738	1801	6	42	7681	1815	44	74	5252
1791	6	21	4525	1802	15	38	5963	1816	78	96	5452
1792	4	28	5272	1803	12	35	6014	1817	70	93	5540
1793	6	26	5282	1804	14	41	5713	1818	52	88	6431
1794	10	28	5396	1805	11	39	7433	1819	63	80	5800
1795	6	24	7659	1806	21	38	7622	1820	59	84	5425
1796	8	24	6081	1807	15	49	7410	1821	59	92	5363
1797	4	18	5412	1808	10	57	8444	1822	47	86	5353
10ys	62	243	56269	10ys	123	418	67459	10ys	546	844	58167

This table requires no particular explanation, as its results speak but too plainly. *For nearly the same number of suicides which twenty-five or thirty years ago occurred during a whole decennary, now take place on an average in a single year.* Or, in round numbers, the proportion of suicides to the deaths in Berlin from 1788 to 1797 was 1 to 900; from 1799 to 1808, 1 to 600; from 1813 to 1822 nearly 1 to 100: so that at the last period there

* Vide for the years 1788—1808 the Berliner Monatsschrift ut supra; and for 1813—1822 the Berlinische Wochenblatt etc. edited by WADZECK.

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were 34 suicides in Berlin to every 100,000 inhabitants. Add to this, those which are concealed, doubtful and attempted, and the result is so appalling, as to demand the most serious attention. The difficulty of ascertaining the correct proportion of suicides is much increased, by those "found in the water," (the number of which in all large cities is not inconsiderable,) and especially, as in reference to them every evasion is made use of, and their proportion is unascertained. By strict investigations, however, and continued comparisons, we may finally calculate with some probability the proportion existing between the designed and accidental drownings of those found in the water.

The following statement has reference to Berlin:

17 y'rs from 1758–1774, 45 suicides and 90 found in the water.
9 " " 1788–1796, 57 " " 57 " "
11 " " 1812–1822, 582 " " 301 " "

Here an intimate connection is very evident. In the first 17 years, when the number of suicides was the least, there were twice as many found in the water. In the 9 following years, when the number of suicides had greatly increased, it just equalled those found in the water, and in the last 11 years, when the number of suicides had so remarkably increased, they were about double of those found in the water. Would it be unjustifiable to conclude from these facts, that the mode only of suicide, (for it also has its fashions), has recently changed; that it was formerly effected in general by drowning, while at present the pistol, cord, poison, etc. are resorted to? In no small number of those found in the water, it is noted in the records, that "the throat was cut," or "a shot in the head," etc., and it is more than probable that in these cases the individuals have destroyed themselves, and had merely selected a spot for the deed, which insured a certain death in one mode or the other. It is only necessary, however, to compare the total of those found in the water, with the

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months in which they were found, to be convinced that a great portion of them should be entered under the head of suicide. The following tabular statement, the data of which are furnished by the records, may serve as proof on this subject.

Number of those Found in the Water and Drowned in Berlin in six years.

Months.	1817.	1818.	1819.	1820.	1821.	1822.	Total
January,.....	5	2	2	....	1	1	11
February,.....	2	2	2	3	2	2	13
March,.....	10	7	2	3	6	4	32
April,.....	7	7	12	12	17	6	61
May,.....	8	2	8	1	2	6	27
June,.....	11	7	4	6	6	8	42
July,.....	4	7	8	9	5	7	40
August,.....	2	7	3	8	6	2	28
September,.....	5	4	3	1	2	1	16
October,.....	1	4	5	5	1	3	19
November,.....	2	1	2	2	2	2	11
December,.....	....	3	2	2	2	2	11
	57	53	53	52	52	44	311

It appears from this table, that there were in the winter months, December, January and February, 35 bodies found in the water; in the vernal months, March, April May, 120; in the summer months, June, July, August, 110; and in the autumnal months, September, October, November, 46. Why is it that the greatest number of accidents by drowning occur, not in the summer, when the Spree is filled with bathers, watermen, washerwomen, fishermen, dyers, tanners, grooms, who lead their horses to water &c. but in the spring, unless a great proportion of those found in the water died voluntary deaths? Finally I will direct your attention to the very extraordinary majority of males among those found in the water, (1812–1822 there were 207 males and only 94 females,) which may be considered as presumptive evidence, if not conclu-

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sive, that no inconsiderable number of these bodies should be entered under the head of suicides, as here also the proportion of males is much greater than that of females.*

As we thus have seen, that suicide has alarmingly increased for the last years in Berlin, we are the more particularly required to compare that city in this respect with other large cities. But in order to a correct comparison, we must investigate and examine other cities during the late years, and I regret, that here on account of the paucity of the sources, we can obtain so few satisfactory results. In Paris† the number of suicides in 1817 was 351: 1818, 330: 1819, 376: 1820, 325: 1821, 348: and in 1823 even 390. If we estimate the population at 713,000, we arrive at the terrific proportion of 49 known suicides, which annually occur among 100,000 persons in Paris, to which must be added also a large number of concealed,‡ attempted and unsuccessful suicides. We are entirely destitute of proper, correct results for late years in London. According to the statement published Sussmilch,§ the ratio of the suicides to the inhabitants of London in 73 years from 1686 to 1758 was incredibly small — 6: 100,000. On the other hand we must not overlook the fact, that during this time 2133 are represented as *found dead*, and 1157 as having "died of intemperance." Just as unsatisfactory are the statements of Black.‖ Burrows, who

* In Paris, where the author has endeavored to obtain the correct proportion of suicides, and particularly the ratio in those found in the water, of suicides to accidental deaths, he has ascertained, that in the year 1820, of 260 found in the water, not less than 165 were suicides! *Rapport sur les Travaux du Cons. de Salubr. Par.* 1821, p. 14.

† From official documents; see my Characteristik der Franz. Medicin etc. Leipzig 1822, 8vo. p. 535.

‡ Vide ut supra.

§ Götliche Ordnung, etc. 4th Aug. 1775, 8v. i. p. 542.

‖ He gives the bills for 75 years, (1701—1777) and states therein 2689 suicides: 7043 drowned, (!) 3799 murdered, (!) 2082 found dead, 421 died of grief, (!) and 397 bled to death! We see here, how intentionally the head of suicide is avoided. BLACK Vergleichung der Sterblichkeit des menschl. Geschlechts etc. Leipz. 1789, 8vo. p. 50.

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recently entered the lists for the honor of his country, undertook to refute the old opinion that England surpasses all countries in the frequency of suicide and mental derangement, in his excellent work on insanity* gives the ratio of suicides to the population in London as 20 : 100,000, — and what more nearly concerns us *he determines the proportion of suicides in London to that of Berlin as* 3 : 5, *that of London to Paris even as* 2 : 5. On account of these last statements, Burrows is strongly and powerfully attacked by Esquirol and Falret in Paris, who have instituted instructive and well founded investigations on this subject; especially because he has taken the year 1817 (a single year !) as the basis of his general assertion, and besides, that upon mere conjecture, he had arrived at the conclusion, that one half of those, who in this year had been enumerated as dying "from insanity," should be considered as suicides.† I need hardly add, that for these weighty reasons, we cannot admit with Burrows, the certainly very exaggerated ratio of suicides between London and Berlin. As long as we have not well founded, impartial investigations on the suicides in London, embracing a long series of years, in which strict respect shall be paid to the number of cases, where suicide is stated by the coroner's inquest as the act of mental derangement, and death by suicide is entered in the Bills as "death by insanity" etc. so long we may be permitted to hold to the old opinion, which so many English physicians and historians have circulated, that suicide is more prevalent in England than in any other country of Europe. In consequence of the heavy legal penalties upon the property, and the sur-

* An Inquiry into certain errors relative to Insanity. London, 1820, 8vo. p. 89, 92, 93.

† Vide the article *Suicide*, (by ESQUIROL) in the *Dict. des Sciences Médicales*. Tom. 53, p. 277, and FALRET, *de l'Hypochondrie et du Suicide*, Par. 1822, 8vo. p. 96, *Burrows* has replied to these remarks, but not very satisfactorily. Vide *London Med. Repository*, Dec. 1822, p. 460, and *London Med. and Phys. Journal*, 1822, p. 483.

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viving family of those in England who have been declared suicides by the verdict of the coroner, they are cautious, from a pardonable mildness, of pronouncing that severe sentence, and hence it is frequently evaded. How far this is the case, and therefore how little credit is due to the official statement of suicide in London, even at present, will be seen by two brief, striking cases extracted from a recent English work.* In June 1816 an instrument maker was found in the Thames, with his wrists and his knees tied together. He had been in a state of mental derangement for two years. *The cord was recognized as his bed cord;* he was a good swimmer, and had taken this precaution to ensure drowning. Notwithstanding all these circumstances, the verdict was "found drowned." In the year 1818, an individual reduced to great distress, took leave of his family, and declared *that he would not return* until he had obtained some employment, so as to be able to support them. On the following day his body was taken out of the Thames, with his hands and legs tied. A card with his address and three pence, were found upon him. When he left home he had five pence, and it was supposed that he purchased the cord with the deficient sum; the verdict was "insanity!!" We repeat it, that under such regulations, the official statements of suicide in London are of little value. It is nearly the same, according to ATTENHOFER'S own confession,† at Petersburg, where in four years from 1808–1811, there were only ninety-four suicides, out of a population of 285,500! while there were ninety-nine "deaths from drunkenness," and 403 "found in the water." "The number of those," says Attenhofer, "who were undiscovered, or were drowned unobserved, may perhaps not be inconsiderable." But the

* Paris & Fonblanque Medical Jurisprudence, London, 1823, 8vo., vol. iii. p. 41, 42.

† Med. Topographie der Haupt und Resid. St. Petersburgh. Zurich, 1817, 8vo. p. 114.

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very considerable number of bodies, during these few years, found in the water, alone makes the above result of the official statements very suspicious, and therefore valueless. *Copenhagen* is so remarkable for the frequency of suicide that it is placed on a par with London. The Danish *savant* Dr. CALLISEN asserted more than twenty years ago, that the proportion of suicides there to the population was as 100: 100,000; (in the year 1817 there were fifty-one suicides out of a population of 84,000 souls;)* in every view of the case, therefore, Copenhagen far exceeds Berlin.

The extraordinary increase of suicide in Hamburgh, in late years, has excited the attention of a psychologist in that place. Prof. Grohmann† states from official documents, that in the year 1816, there were only two suicides, in 1817, 18; 1818, 17; 1819, 12; 1820, 10; but in 1821, 31; and in 1822 even 59, so that in the last years it was ascertained that in Hamburgh 45 out of every 100,000 were suicides. But not merely in the great cities of Europe, the theatres, where civilization and ultra-civilization, opulence and wretchedness, intrigue, and licentiousness strive for the mastery, have we to lament that the propensity to suicide has increased, even smaller states and cities share with them this melancholy prerogative. From the year 1789 to 1795 inclusive, there were in the whole great Dutchy of Mecklenburgh only three suicides known; in the last years they are numbered respectively 23 and 24, and in the year 1818 alone 48! MASIUS, who communicated this intelligence from official documents,‡ adds "the causes of this appalling phenomena lie, without doubt, among us, in the deep distress pressing upon many classes, in the unbridled power of sensuality, in the want

* Burrows, p. 92.

† Hufeland's Journal, 1823, August, p. 96, (*Rambach* in his Topographie von Hamburgh says nothing of suicide there.)

‡ Henke's Zeitschrift, f. d. Staatsarznk, iii. p. 46.

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of mutual confidence and good will, and in the absence of a true Christian faith." The public journals, a few weeks since, stated the almost incredible fact, "that in the narrow environs of Frankfort on the main, in the year 1823, not less than *one hundred* suicides occurred." *Elberfeld*, a small manufacturing town of 20,000 inhabitants* in seven years, viz: from 1816 to 1822, numbered 29 suicides; thus 20 to 100,000 of the population, which for so small a place is very distressing. In Erfurt in August 1823 there were within ten days five suicides. In forty-three judicial inquests (*obductionen*) which Herrn. Hofr. Hinze attended in *Waldenburgh* in Silesia, in six years, there were not less than thirty suicides of which twenty-six were by hanging! These facts may suffice to vindicate Berlin from the unfounded imputation, that there suicide is remarkably in fashion, and may, at the same time, contradict the numerous high-toned philippics of foreign writers.

We will now attempt impartially to investigate the ætiological relations, which may have occasioned the evident increase of suicide in our own country since former times, as has been heretofore proved and which must be particularly attended to in an essay on this subject. It is indeed very difficult to bring into a single point of view, the great variety of material and mental influences, which affect the lives of individuals and of whole nations: yet the investigation will be more difficult and subtle if we separate these influences, for their union and connection is frequently the first cause of any mental aberration, and thereby suicide, — for the physician is accustomed in ætiological investigations to observe individual influences, and the science of medicine has in this manner arrived at many certain and useful results.

Among the general causes, which are to be noted, stand first those of *climate and the atmosphere.* But the au-

* From official documents published in an essay (by *Benzenberg*,) entitled, "Was Cönen really murdered?" 8vo. 1823, p. 13.

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thors, who have been occupied with similar inquiries, have on these points arrived at such different results, that the truth is not very apparent. In fact we see, that the same countries, with the same climate, at different periods exhibiting different results in respect to the number of actual suicides, while with the same climate, other lands have shown an entirely contrary result:—while here certain seasons and months, and in other places very different ones exhibit the preponderance. During the time of the Romans, suicide in Italy was much in fashion, while at the present day, with the same climate it is not particularly remarkable in this respect.* On the contrary at that time, suicide in England was little known, while at the present day, it shows the largest numbers of this crime. Holland lies under nearly the same climate as England, and yet we do not know that suicide was ever so prevalent there. In Copenhagen, Berlin, Paris, &c. suicide in recent periods has alarmingly increased, notwithstanding the climate has remained the same. "I will not deny," says a very eminent physician,† "that a cloudy, dark sky induces gloomy, sad and melancholy thoughts, and hence in some degree has an effect upon suicide, but I believe that here the authority of Montesquieu dazzles us, and that his remark has frequently been repeated without sufficient examination." According to the same writer,‡ suicides in Paris are most frequent during very hot weather; it has also been remarked by WERTHEIM in Vienna,§ that in June with increasing melancholy and mania, suicide also increased:—the five suicides before mentioned, which took place in Erfurt within ten days, occurred in August 1823, "during clear and very hot days." On the other hand Osiander‖ con-

* Naples in 1823 had a population of 350,000, and only thirteen cases of suicide, of which it was remarked, that nine were insane. Tübzl. Med. Chir. Zeit. 1824, No. 37.

† Esquirol p. 242.

‡ Ibid, p. 243.

§ Versuich einer Med. Topogr. von Wien., 1820, 8vo. p. 185.

‖ Ut supra p. 85.

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siders the equinoxes, as the period at which suicide is the most prevalent, and that thus the months of March, April, September and October, should be the most remarkable. While in Switzerland,* it is said, that in November suicide is far the most frequent, and even in England, November is called the "hanging month." Just as little agreed are the observers upon other accompanying influences. A high state of the barometer, sudden changes in the atmosphere are required by Osiander;† by Cabanis and Esquirol, a wet autumn succeeding a very dry summer;‡ by Cheyne autumn and east winds; Fodere and Duglass a state of the thermometer above twenty-two degrees R. at which times they observed the greatest number of suicides at Marseilles.§

I have made similar observations relative to suicide in Berlin, and have not only found, that the influences of climate are not sufficient to explain the difference of the number of suicides in different years, but also that (in the present state of our knowledge) we cannot decide that any real effect of the changes of the atmosphere upon suicide can be proved. This will be seen in the following table.

Results of the Weather in Berlin during Eleven Years, and the Number of Actual Suicides.

	Very clear	Clear	Cloudy.	Mist	Cold	Mild	Hot.	Cool	Temperate.	Dry.	Wet.	Mixt.	Suicides
1812	5	100	107	153	97	43	17	123	85	191	81	103	36
1813	10	102	76	177	98	36	34	71	126	168	71	126	40
1814	7	120	92	146	103	29	37	131	75	189	50	126	34
1815	6	97	90	172	96	28	33	117	91	164	76	125	44
1816	3	101	98	164	105	11	35	111	104	165	77	124	78
1817	7	101	97	160	64	34	38	73	156	164	62	129	70
1818	13	110	59	183	87	41	45	99	93	180	63	122	52
1819	8	124	78	155	97	29	82	59	98	177	72	116	63
1820	8	107	81	170	105	35	47	76	103	178	60	128	59
1821	17	94	83	171	58	45	74	70	118	148	81	136	59
1822	16	229	43	77	30	40	60	55	180	60	215	90	47

* Blumenbach's Medic. Biblioth. ii. p. 164. † Ut supra, pp. 88–90.
‡ Dict. & Sc. Med. ut sup. p. 243. *Falret*, as above, p. 27.

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How little, according to the above statement, does the difference in the state of the weather, even when the greatest, correspond with the difference of the sum of actual suicides! In the year 1818 with only fifty-nine cloudy days there were fifty-two suicides. In 1812 with 107, only 36. In 1820 there were 47 hot days and 59 suicides. In 1821, 74 hot days and only 59 suicides. In 1816 there were 77 wet days and the incredible number of 78 suicides, while in 1822 with 215 days of wet weather, there were only 47. On the other hand a very similar state of the weather in different years exhibits very different results on this point. The year 1814 had 103; 1816, 105 cold days; during the former the number of suicides was 34, during the latter 78. 1812 with 181 dry days shows only 37, 1818 with 180 dry days 52 suicides. In 1817 there were 82 wet days and 70 suicides, 1812 only 36, notwithstanding there were 81 wet days. Compare only the years 1812 and 1816, the one with 36, the other with more than double that number, to wit, 78 suicides, and observe the slight difference of weather. But by pursuing these investigations upon the connection between the influences of climate and suicide still farther, we obtain little that is satisfactory and arrive only at a negative result; and yet it appears to me however, that we should consider this subject with much attention in order, in the first place, to form a correct conclusion on the contradictory opinions of observers, (among whom I have looked in vain for any profound or solid proofs,)—and secondly and especially, because the serious attention of medical jurists will thereby be excited, who must remain mere passive spectators, if there shall be proved to exist between the tendency to suicide, and the influences of climate, a necessary and unchangeable connection.

For this purpose, I have observed for sixty months, (during the five years from 1818–1822,) the highest, lowest and middle point of the barometer and thermometer;

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and the prevalent winds. The number of actual suicides are collected and set opposite thereto, presenting however, from this long, and to the reader tedious table, only an abridgment containing a comparison of twelve months, in which the least number of suicides have happened with twelve other months, in which the greatest number have happened: which abridgment, I hope, will sufficiently determine what I, for Berlin at least, attempt to prove.

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State of the Weather in Berlin for Twenty-Four Months, with the Number of Cases of Suicide.

	Suicides.	Highest state of the Barometer.	Lowest state of the Barometer.	Middle state of the Barometer.	Highest state of the Thermometer.	Lowest state of the Thermometer.	Middle state of the Thermometer.	Prevailing Winds.
1818					R	R	R	
Feb.	1	28. 6. 7	27. 2.10	28.	+ 7½	— 5½	+ 3	w.
Dec.	1	28. 7.12	27.10.	28. 3.	" 6	" 8½	— 2	s.w.
1819								
Aprl	1	28. 4. 9	27. 8.	27.11.4	" 17½	+ 1	+ 7	nw.
1820								
Feb.	1	28. 5.12	27. 8.	28. 3.5	" 8	— 5½	— ½	E.
Mar.	..	28. 6. 5	27. .14	27. 3.4	" 12½	" 3	+ 2	nw.
Aug	2	28. 5.	27. 8. 9	28. 3.5	" 26	+ 9	" 12	w.
1821								
Feb.	1	28.10.	27. 9.	28. 5.5	" 5	— 7	— ½	w.
Mar.	1	28. 4.	27. . 9	27. 6.4	" 13	" 11	+ 2½	w.
June	2	28. 4. 2	27. 8.	28. 3.4	" 19	+ 5½	" 11½	N.
Dec.	2	28. 6. 8	26. 7.	27. 5.5	" 8	— 1½	— 3	s.w.
1822								
Feb.	1	28.10.	27. 9.	28 3.	" 8	+ 2½	+ 3	w.
Mar.	1	28. 8.	27. 3.	28.	" 14	— ½	" 6	s.w.
	51							

	Suicide.	Highest state of the Barometer.	Lowest state of the Barometer.	Middle state of the Barometer.	Highest state of the Thermometer.	Lowest state of the Thermometer.	Middle state of the Thermometer.	Prevailing Winds.
1818					R	R	R	
July	7	28. 3.14	27.10. 9	28. 2.	+ 23½	+ 9	+ 12	NW.
Sept	8	28. 4.	27. 9.	28. 2.	" 20	" 6	" 10½	s.E.
1819								
Mar.	8	28. 3. 6	27. 4. 6	27. 6. 8	" 12	0	" 3½	w.
Sept	7	28. 5.10	27. 8.10	28. 3. 5	" 22	+ 5	" 12½	NW.
Nov	7	28. 4.	27. 4.12	27. 6. 5	" 8	— 4	" 1½	s.w.
1820								
Aprl	10	28. 6.	27. 7.	28. 4. 6	" 20	+ 1	" 8	NW.
May	7	28. 6.	27. 7.	28. 4. 4	" 20	" 3	" 12	w.
Octr	7	28. 7. 2	27. 2.10	27. 5. 5	" 18	" 2	" 7½	s.w.
1821								
Jan.	7	28. 9.	27. 3.	27. 6. 5	" 6	— 8	0	NW.
Sept	7	28. 3. 2	27. 6.	27.11.	" 23	+ 7	" 13	w.
1822								
Aprl	6	28. 6.	27. 9.	28. 1.	" 20	— ½	" 8	N.E.
Octr	5	28. 5.	27. 7.	28.	" 16½	+ 1½	" 8	s.
	86							

On comparing together, from this table, twelve months in which there were but fifteen suicides, and twelve others in which there were more than six times as many, viz: eighty-six, we find that upon the whole, the state of the atmosphere varies so slightly, that its influence upon suicide is by no means clearly proved. The month of April 1820, which has the sad pre-eminence of having ten suicides, differs but slightly in these influences from other months, in which the very smallest number occurred. But we cannot explain from this table, why no case of suicide should have happened in the month of March 1820. The highest state of the barometer was in February 1821 and 1822, the lowest in December 1821, and the number of suicides in these months, was neither very large nor very small. In August 1820, the thermometer rose to 26 degrees R., in March 1821 it fell to—11 degrees; the former had two, the latter one case of suicide. From the observations of sixty months, we have arrived at results as little satisfactory respecting the influence of certain winds.

We go still farther. We have attempted to ascertain if any and what influence different *seasons* and months have upon suicides, but here, as has just been seen, we have arrived at very different results, while sometimes summer or autumn, April, June, or November appear particularly unfavorable. We need only collect together on this point, the facts afforded in late years by Berlin, Hamburg, London and Paris, and which have been published. And the suicides will be as follows:

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	Berlin,* 1812—1822.	Hamburgh,† 1816—1822.	Westminster‡ 1812—1821.	Paris§ in six years.
In January, February and March,....	109	39	67	42
In April, May and June,.....	155	31	55	58
In July, August and September,.....	173	41	60	61
In October, November and December,	145	38	46	31

from which the succession of the seasons in the aforesaid cities would be in the following order:

Berlin.	*Hamburgh.*	*Westminster.*	*Paris.*
Summer,	Summer,	Winter,	Summer,
Spring,	Winter,	Summer	Spring,
Autumn,	Autumn,	Spring.	Winter,
Winter.	Spring.	Autumn,	Autumn.

I freely admit that these few years are not sufficiently decisive, but still the diversity of the results under different climates is remarkable. The influence of certain months in the aforesaid years and cities appears just as different.

The suicides happened as follows:

	Berlin, 1812—1822	Hamburgh, 1816—1822	Westminster, 1812—1821.
January,.....	42	12	21
February,.....	20	13	22
March,.....	47	14	24
April,.....	63	11	16
May,.....	48	12	14
June,.....	44	8	25
July,.....	54	17	30
August,.....	59	11	15
September,.....	60	13	15
October,.....	52	9	12
November,.....	49	15	17
December,.....	44	14	17

* From Wadzeck's Journal.
† Grohmann in Hufel. Jour.
‡ Falret, ut supra, p. 97.
§ Esquirol, do 243.

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Not even a single place, Berlin, leads us to the same result at different times, from which to calculate with any degree of certainty upon the influence of climate. In seventeen years, from 1758–1774, as observed by *Mohsen*, the most suicides took place in April, June and December, which months were equal. In six years from 1781–86, April and May had the greatest numbers,* and in 11 years observed by me, it was April, September and August. And hence I think, that so far, sufficient proof is shown, that the influences of the atmosphere and climate are not so decisive upon suicide, as many have believed, and more stated, and that other circumstances play an important part, and in fact must have an influence upon the evident increase of suicide of late years.†

We see, that with the exception of a few nations, who have a decided propensity to self destruction,‡ man in a

* Berlin Monatsschrift, 1788, xii. dp. 213 and 223.

† It is here proper to note the unquestionable fact, that suicide occasionally is *epidemical*. Who has not read the account of the epidemic among the Miletian virgins, related by Plutarch? Sydenham states such an epidemic (in Mannsfeld) in June, 1697, after very hot weather and a north wind from the 13th to the 20th of the month. Blumenbach (Med. Biblioth. ii. 172) says, that 1735 and 1736 were epidemical years in London, for so large a number of suicides had not occurred in 102 years there, as during these years. Wertheim in his Topography of Vienna, (p. 186) remarks, that during the hot summer of 1803, suicide was very prevalent, and that Guldener Von Lobes, a physician, had at that time the charge of 200 (?!) patients, who manifested a propensity to suicide. Esquirol adds, (ut supra, p. 24) that in the village of St. Pierre Monjeau, in the year 1813, a suicidal epidemic was observed; a female hung herself, and many others (as formerly at Miletia) felt impelled to follow her example. In Montpellier (Esquirol, p. 242) more suicides took place in 1820 than in the twenty years preceding. I will merely add, that no such epidemic has ever prevailed in Berlin, unless we so consider the year 1816, for which other causes however, (the close of the war) which exhibit a very great, but not entirely different proportion to the previous number of suicides.

‡ See, as to the propensity of different nations to suicide, *Meiners* in Göttinger, Histor. Magazine, ii. 104—109.

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state of nature is unacquainted with suicide,* and that life is considered (as by animals) the highest good, and even in conflict with wild beasts he strives to preserve it,—(the wildest tribes have on this account their weapons of defence—whence all human civilization originates, and by which this love of life is manifested.) While on the other hand we see, that suicide is most prevalent where refinement and luxury have established their dominion, in civilized Europe, and here especially, in its most splendid centres, London and Paris; so that it appears that with advancing civilization—with the increasing refinement of human society, the propensity to self destruction keeps equal pace. And hence in the circumstances which separate man from his original condition, and bring him nearest to his highest aim, in the influences of civilization we find a large number of causes combined, to produce voluntary self-destruction. No where does the dark side of civilization appear more strikingly, than in the almost incredible increase of *infant-suicides*, and to which I would direct the attention of all who have the well-being of the human race at heart. In ten years, from 1788 to 1797, only *one* boy had hung himself: in the ten succeeding years, from 1798 to 1807, the number published in the bills was three,† and in the ten years from 1812 to 1821, I find *thirty-one* cases of suicide enumerated,‡ of which it is stated that *three* were boys and *twenty-eight* apprentices! Alas! these phenomena,—which prove to what fearful results a too inconsiderate "forcing system of education" leads, exciting too early, feelings and desires which the undisciplined intellect cannot control,—and how deeply destructive, on the other hand, is the neglected educa-

* A recent traveller asserts, that at Medelpad, in Lapland, where primitive manners and customs prevail, where no dwelling is protected by lock and key, and the inhabitants are principally graziers, farmers and weavers, suicide is totally unknown. Schubert Reise nach Schweden etc. 1824, ii. 478.

† Ibid.

‡ Wadzeck's Journal.

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tion of youth, growing up in an age of instruction and of morbid excitement,—alas! I repeat of these melancholy phenomena, not merely Berlin, but other places afford distressing evidence. At Gleissen (Neumark) a cowherd boy, in August, 1820, hung himself from *pure disgust of life.** A farmer's boy at Leibenow, *fourteen years of age*, hung himself in December, 1821, because he found great difficulty in learning the task imposed upon him by his pastor,† On the 21st of May, 1822, B. an apprentice at S. (Regierungs Bezirk, Frankfurt) made an attempt to destroy himself, by placing in his mouth and discharging a pistol loaded merely with powder. As this merely burnt his mouth very severely, he cut his throat, even to the bone with a case-knife. When this wound failed to effect his object, he re-loaded the pistol, placed it at his temple, and tore off his scalp. Over-excitement and a false sense of honor appear to have been the motives. It is stated in the same official documents, which were furnished to me, and from which I have made the above extracts, that in the said Regierungs Bezirk "several boys had killed themselves." On the 7th of December, 1823, A. a young servant on a farm in Corsenz (Silesia,) *sixteen* years of age, hung himself, because his fellow servants had threatened not to live with him, on account of his having stolen a paper of tobacco from a pedlar.‡ A boy, *thirteen* years old, in the circle of Halle, hung himself in 1824, because he doubted whether he should be able ever to learn and understand any thing.§ On the 5th of March, 1821, an apprentice of K. a printer, in Breslau, *seventeen* years of age, poisoned himself with opium,‖ which he had contrived to procure, and which he had taken twice in brandy, "from mere disgust of life, because his time of service had eighteen months longer to run!" On the 21st of October

* Rust's Magazine, xiii. 157. † Ibid.

‡ Spener's Berlin Gazette, 8 Feb. 1824. § Ibid, July 1824.

‖ The following cases are extracted from the records.

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1821, the foster-daughter (*twelve* years old) of R. a day laborer in Breslau, attempted in open day to drown herself in the Oder, under the pretence of fear of punishment, because she had broken a coffee saucer. On the 12th of February 1822, R. a tailor's apprentice (*sixteen* years of age) was found under the benches in a church in Breslau: he confessed that he had run away from his master, and taken with him a gun to shoot himself, and made the attempt, because he had stolen and sold a cane. On the 21st of March 1820, K. a basket-maker's apprentice, confined in the house of correction in Berlin, on account of his vagabond habits, from mere disgust of life stabbed twice with a knife, T. a boy also in the same house. The daughter (*thirteen* years of age) of N. a grinder in Berlin, stole on the 27th November 1820, $3.18 from a friend, and when the fact was discovered and told to her father, the little thief hung herself in the garret! Very similar is the case of an attempt by a step-daughter, not *twelve* years old, of G. a silk weaver in Berlin to drown herself in open day in the Spree, because she dreaded punishment from her father, on account of a theft which she had committed. (She was however saved.) Edward D. *thirteen* years old, born in Berlin, who had been taken in his infancy as an orphan, by D. a tailor, and made an apprentice, hung himself on the evening of the 7th of August 1822, in his master's garret, where he slept. The cause of the deed was unknown. The foster-son, *twelve* years of age, of W. a saddler in Berlin, was missed by his foster-parents on the 29th of April, 1823, and on the following day was found hanging in the garret. G. a shoemaker's apprentice in Berlin, *eighteen* years of age, killed himself on the 24th May, 1824, in a privy, by opening an artery in his neck, probably from fear of punishment, because he had severely beaten a fellow apprentice in a scuffle. In the year 1818, a child *eight* years old committed suicide: the particulars of this case I have not been able to learn.

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I would direct the attention of the guardians and protectors of the physical and moral well-being of the people, to the preceding collection of cases of infant-suicide in late years. Children of *twelve* years of age, destroying themselves from disgust of life, or fear of a slight punishment.

Another striking proof of the influence of luxury, and of all mental and moral eccentricity on this subject, in cities as contrasted with the more simple habits of the people in the country, is seen by a comparison of the proportion of suicides in both respectively: in the following table, which I have compiled for the purpose, the results* in the Prussian monarchy for seven years are shown:

Number of Suicides in Prussia, computed in reference to the Cities and the Country.

	In the Cities.	In the Country.	Total.
1816	262	156	418
1817	364	336	700
1818	339	311	650
1819	452	373	825
1820	475	258	733
1821	456	339	795
1822	442	417	859
	2790	2190	4980

Thus in seven years there were in the cities 2790 actual and known cases of suicide, and in the country 2190. But only about one fourth of the population of the Prussian states, resides in the cities, the remainder in the country; and hence it follows that out of 100,000 inhabitants in the cities more than fourteen are suicides; while among the same number of persons in the country the proportion is only four.

It is a well known fact, that every where suicide is more frequent among males than females. This arises from the

* Vide Märker's Essays, ut supra, p. 12.

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more active character of man, his more busy life and his position in society. I have elsewhere shown that the more frequent occurrence of insanity among females in France, than among males in England, may be explained, after allowing for the difference of national temperament, from the different position which man in England, and women in France, occupy in society; and I am convinced, that suicide, so nearly allied in every respect, to mental derangement, is produced by the same causes. On this account female suicide is far less common here than in France, where, if I mistake not, the most cases of suicides among women occur; and the reason is, that women no where play so important a part as in France. Esquirol* computes the suicides of males to females as 3: 1; yet this ratio appears to be too favorable to the female population of France. The official tables respecting the population of France, compiled with great accuracy and published annually, give for the last few years the following results:

Suicides in Paris.

	Males.	Females.
1817	235	116
1818	192	138
1819	250	126
1820	211	114
1821	236	112
1823	262	128
	1386	734

For the years 1805–1807 Esquirol gives the result as 282 and 113, so that we may calculate the ratio of suicides of females to those of males as 1: 2. For the female sex, Berlin shows a far more favorable proportion: — where the ratio is as 1: 5 — as follows:

* Ut supra, p. 246.

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Suicides in Berlin.

	Males.	Females.
From 1788—1797	55	7
1798—1808	101	29
1812—1821	450	85
	606	121

embracing a period of thirty-one years, from which to draw our conclusions. Of course, during particular seasons, if certain causes are remarkably active, this result may be changed. These investigations upon sex lead to the examination of the ætiological relations of suicide in respect to age, and to different conditions and occupations, a knowledge of which is unquestionably in the highest degree important and influential, but which at present is very uncertain, as frequently the personal condition of the suicide is unknown. Indeed the statements relative to age, among the suicides in Berlin, are so very unsatisfactory, that we cannot with any certainty decide thereupon. Of 500 cases of successful and unsuccessful attempts at suicide during six and a half years, I found in the police records the age of only 220 stated, while of 280 the age was omitted; as will appear from the subjoined table, which I have compiled and published solely for the purpose of hereafter obtaining more correct statements.

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Number of Actual and Attempted Suicides in Berlin, and the Age of the Criminal.

	10 years.	15.	20.	25.	30.	35.	40.	50.	60.	70.	80.	Over 80.	Unknown.	Total.
1818	1	2	4	2	3	1	1	2	3	2	2	..	41	64
1819		2	8	4	1	..	..	1	..	3	..	1	67	87
1820		4	2	3	1	2	2	5	5	3	3	..	41	71
1821		1	3	5	5	1	1	7	4	2	2	..	47	78
1822		1	3	5	8	5	3	9	6	2	1	..	26	69
1823		4	6	7	5	3	1	8	11	4	1	..	39	89
1824 January to June,		3	6	4	2	..	1	2	3	1	..	1	19	42
	1	17	32	30	25	12	9	34	32	17	9	2	280	500

A single remark (as we have previously spoken of the cases of suicide among the young,) of a very melancholy character suggested by the above table, otherwise of little value, is the number of persons who, in advanced life, when the end of their course is so near, cannot await its termination, but violently destroy themselves. Even the disproportion between poverty and competency in these cases, will not explain the phenomena, for Berlin has done much for the poor and aged: and in fact many of these cases of suicide occur at the hospitals, where, under mild regulations, freed from care, they might spend their lives comfortably. *Amentia senilis* will probably in most cases, be the ætiological explanation.

From the most authentic documents relative to Berlin, I have, as far as was in my power, examined the causal relations of suicide, in reference to different conditions, and occupations: having for this purpose investigated the ten years from 1812 to 1821, I have arrived at the following results, upon which, however, I place no great value, as a very large number of suicides remain unknown,—yet I would not on account of the importance of the subject,

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omit them. Among the cases of suicide in Berlin from 1812 to 1821, there were the following:

Apprentices and Boys,		31
Journeymen of different trades,	59	
Master-workmen,	32	
	—	91
of which there were,		
27 Weavers and Spinners,		
11 Journeymen Masons.		
5 Carpenters.		
9 Shoemakers.		
5 Tailors.		
6 Joiners, &c.		
Of the Military,		38
Viz: 5 Invalids.		
31 Soldiers.		
2 Officers.		
Servants and Laborers,		40
Artists,		8
Viz: 5 Musicians.		
3 Painters.		
Manufacturers,		4
Professional Men,		3
Viz: 1 Physician.		
1 Student.		
1 Professor of Languages.		
Civil Officers,		3
Viz: 1 *Rendant.*		
1 *Calculator.*		
1 Register.		
Merchants,		16
Of different occupations,		44
Viz: 7 Servants.		
5 Gardeners.		
5 Clerks.		

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4 Bailiffs.	
3 Drovers.	
3 Coachmen, &c.	
Unknown Men,	172
Married Women,	33
Widows,	20
Unmarried Women,	23
Servant Maids,	8
Prostitutes,	1
	535

If we may trust this statement, it seems that among males, laborers and artisans afford the largest number of suicides. Of the cases among artisans, weavers are the most numerous; and the old fact, that in this trade hypochondriacs, fanatics and theologians are frequent,* is confirmed. Their sedentary life, the mechanical, unvaried nature of their occupation, offering no stimulus to the mind,† and especially the destruction of this trade recently by the introduction of machines, the stoppage of trade, &c. easily explain this result. Other persons, in countries where weaving is done at home, as in Silesia, have made the same observation. "Nothing," says Mr. Coun. Hinze, in his essay previously cited, "nothing conduces so much to that silent morbidness, the tendency to fanaticism, the propensity of suicide, as the monotonous occupation of weaving, destitute as it is of all agreeable change. Add to this trade learned solely and exclusively, and followed from youth up, care for a livelihood, household cares, unfortunate marriage relations, and as the case has been

* Arnold's Kirchen und Ketzerhistorie is full of examples of this fact.

† Blumenbach believes, from strict investigations, that these are the prime causes of the prevalence of suicide in Switzerland. (Medic. Bibliothek, ii. 165.) Zimmerman makes mention also of a large, beautiful and wealthy village in Switzerland, in which there was not a single house (!) where some person had not hung or in some other way destroyed himself; and he likewise attributes it to their sedentariness.

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for the last ten years, the stoppage of trade, with its diminution of occupation, on account of the slight exportation of linen, and the pressure on the merchants — and suicide commonly terminates their embittered, joyless life; and with whose feelings you must be as intimately acquainted as the author of this essay, in order fully to pity and commiserate the poor, unfortunate suicide."

But we need not wonder, after the preceding statement, at the large number of suicides in other trades, if we bear in mind that freedom of trade, (of great importance if viewed from a higher point of view) has in late years fluctuated from its "golden basis;" — that the unskilful or dishonest workman cannot, as formerly, free from care rest upon the shoulders of his fellow workman — and that with increasing licentiousness, ruinous vices,* (particularly drunkenness, to which we shall hereafter refer,) have coiled around the lower classes.

The suicides so prevalent at present among the soldiery, (the total of which on many grounds, certain and uncertain, are even greater than as above stated) may astonish us, if we look at the innumerable improvements, which for eighteen years past the Prussian army has undergone. The mania for foreign fashions, the punishments and disgraceful treatment, the excessively strict discipline, and the wretched pay, are abolished: the true paternal feeling of the humane and just king has exerted its influence upon the superior officers, among whom at present, there are no "tyrants," such as Von Zimmerman thirty-seven years ago styled the late general S. of Potsdam, who by his cruelty almost drove the soldiers to suicide; and where formerly the foreign mercenaries impressed into the service, serving only by compulsion, frequently waited only for a favorable moment for deserting, now, on the

* The gambling and lottery transactions of one individual in this great metropolis, are said to be productive of from ten to fifteen suicides annually. Colquhoun's Treatise on the Police of the Metropolis, p. 144, note.

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contrary, the Prussian soldier proud of his condition, may attain an honorable and distinguished rank. Nevertheless in the condition of modern barracks, in the fact, that even at present the majority of the common soldiers must remain unmarried, bound neither by the ties of wife nor child, nor home, and subject to many other influences enumerated by recent military writers on the Egyptian Opthalmia, causes more than sufficient exist to lead to disgust of life and suicide.

The prevalence of suicide among the lower classes of people,—servants and laborers, is very great. The observer is met at every step, by causes, which compel him to stop and consider. While in England, the noble and high born, who are placed on the most dazzling summit of earthly happiness, frequently commit self-murder, here, on the contrary, the poorest and the lowest classes wearied of life, cast it off. *There* (if the theory of Brown is anything more than mere word-play,)—we see the same disease, wearisomeness of life, arising from over-irritation,—*here* from want of irritation. Extremes meet: the opulent English nobleman, and the poor laborer of North Germany, both waste their existence, and squander their life:—each however in his own way, the former at the gaming table, Vauxhall, &c. and the latter in the spirit-shop. Notwithstanding suicide is often produced by a long series of moral causes, viz: grief at the vicissitudes of life, political troubles, love &c. (for the care for livelihood is of little importance, since in a large city like Berlin, an industrious artisan can easily obtain sufficient for the supply of his wants,) still without doubt, I think, we must regard *increasing drunkenness, the moral pestilence of our age*, as the prime cause of this disease among the lower class of people in our country. This vice threatens to destroy, mentally and physically, even in the other and higher classes, the strength of the nation; and has unquestionably, been more than any other, the proximate cause of suicide in

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Berlin. If in England, and especially in Ireland, the excessive use of spirituous liquors is regarded as the most important ætiological cause of the prevalence of insanity, (so that more than one-fifth of all the causes of mental derangement in Ireland, where the causes are known are ascribed to drunkenness) I regret to add that this fact seems also to meet with confirmation here. An official communication relative to Berlin, and comprising the last years, says on this point, that nearly one third of the cases of insanity are to be attributed to the abuse of brandy; and in another place "that the same abuse has unquestionably occasioned an increase of insanity of late years in Berlin;" in proof of which increase is cited the number of insane and other patients received into *Charite* hospital, as seen in the following table.

	No. Patients generally.	No. Insane.		Proportion.
1819	5507	M. 108	F. 122	2 : 48
1820	5122	104	97	2 : 51
1821	5471	121	120	2 : 45
1822	6274	175	125	2 : 42

Almost all the cases of insanity, which occurred in Gottingen from 1813 to 1822, were of men, who had become so in part from the abuse of brandy.* It is stated in a report of the directors of the Lunatic Asylum in Paris,† that on the 1st of January, 1822, of 764 males, and 1726 females, 75 men and 150 women had become deranged from drunkenness.

There are philanthropists who would not embitter the highest earthly enjoyment of the lower classes, and who regard as too stern those moralists, who paint this fact in dazzling colors. They cloak their opinions under dietetic rules, believing that brandy is an indispensable stimulus

* Marx, Topography of Göttingen, 1824, 8vo. p. 377.

† (Desportes) Rapport fait au conseil general des hosp. civ. de Paris etc. sur le service des aliénés, Paris 1823, 4 Tables.

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on account of the coarse food of the lower classes, and congratulate the state, that in the depreciation of the price of grain, it can at least draw a revenue from ardent spirits. We are far from controverting, what may be true in those opinions; and are here only concerned with the unbridled excess of this passion for drinking.

A proof of the intimate connection between this vice and the propensity to suicide is afforded by those nations, where both are prevalent and predominant. Among the Kamschadales, who are uncommonly fond of intoxicating drinks, and who prepare a spirituous liquor from Sphondylium and muchomor, (poisonous mushrooms,) suicide is said to be more frequent than in any other country.* London, which is noted for the frequency of suicide, numbered in seventy-three years from 1686 to 1758, not less than 1157 sudden deaths "from intoxication."† I regret to add that in our own country during the last decennary, hardly a single year has past, in which one or more persons have not died with the intoxicating cup in their hands,—a mode of death, of which no mention is made, in the earlier bills of mortality. During the years 1813 to 1822 inclusive, the number of sudden deaths from intoxication were *nineteen*.‡ SUSSMILCH sixty years ago§ complained of the increasing excess in the use of ardent spirits in Berlin, and called attention to its terrific consequences. Thirty years later, FORMEY‖ stated that brandy had become as indispensably necessary as bread; and that the majority of paupers and mendicants consisted of those persons, who had lost their health, strength and property by

* Finke, Vers. einer allgem. Med. Pract. Geographie, Leipsic, 1792, 8vo. ii. 658.

† Vide Süssmilch's Tables, i. 542—545.

‡ In the year 1814, 1; 1816, 5; 1817, 2; 1818, 3; 1819, 2; 1820, 2; 1821, 3; 1822, 1.

§ Ut supra, i. 547.

‖ Essay on the Med. Topogr. of Berlin, 1796, 8vo. p. 75.

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intemperance, while at that time death occasioned by brutal intoxication was unknown, and no case was published like the following, of a silk weaver's apprentice, *fifteen* years of age, who, on the 4th of March, 1821, came with his brother from Bichelsdorf (near Berlin,) and in consequence of excessive intoxication became so severely ill, that he died on the following day. Deep must be the roots of the evil where such are its symptoms! As an individual, if he yields to this dangerous habit, slowly and imperceptibly is seduced into excess, so will whole nations plunge deeper and deeper into intemperance, especially if it co-exists with other causes. And these causes are at hand. The great depreciation in the value of grain drives the owners to distilling; and from the number of persons thus engaged as well as the low price of the material, the article manufactured is afforded at a very cheap rate.

[The author then treats at some length of the physical and moral effects of intemperance upon the people, but as the same views have since been brought forward in this country, and the whole subject discussed even to exhaustion, I have thought it best to omit them.]

Nearly one fourth of all the cases of suicide in Berlin, from 1812 to 1821, published in Wadzeck's Journal, from the police records, where the cause is known, are ascribed to intemperance. If in the following table, extracted from the records, the cases under this head do not appear very numerous, it must not be forgotten, that this table, on account of the great number of suicides from causes unknown, is imperfect; and especially, since those comprised under the head of insanity, debts, domestic cares and unhappy marriages, are to be attributed chiefly to drunkenness.

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Causes of Suicide in Berlin.

	Offended honor.	Insanity.	Drunkenness and Dissipation.	Dread of punishment.	Debts and Domestic Cares.	Love.	Matrimonial Strife.	Disgust of Life.	Disease and Pain	Religious excitement.	Unknown Causes.	Total.
1818	6	7	3	5	2	3	3	..	1	....	34	64
1819	..	8	5	7	3	1	3	1	..	....	59	87
1820	..	5	10	6	2	2	....	..	4	....	42	71
1821	1	13	6	5	2	..	1	..	2	....	48	78
1822	1	9	7	3	5	1	1	2	2	....	38	69
1823	3	14	12	4	4	4	3	..	2	1	42	89
1824	3	5	11	2	....	1	....	..	1	....	19	42
Jan.: June	14	61	54	32	18	12	11	3	12	1	282	500

It is to be regretted that in more than one half of the cases of suicide in Berlin during the aforesaid period (including the cases of attempts) the cause is unknown, or at least not registered, and hence this table, like the preceding is of little value. Fear of punishment, frequently only of a slight chastisement, has been productive of cases of infant suicide, as has heretofore been seen. It is indicative certainly of a very depraved or disordered state of mind, that a young man should willingly commit self-murder, rather than penitently undergo correction from his parent or master. The cases of suicide among the soldiery belong, generally to the same category. If a wise policy dictated, from necessity, an entire change in the Prussian military system, from the year 1806, — if it was their principal aim to awaken a sense of honor, and an *esprit du corps*, — the last few years have shown what consequences the country are to derive from such an enlightened army. But if this sense of honor should be encouraged and raised to its highest pitch, yet if a soldier must, like a slave undergo the most disgraceful punishment, should he steal only the value of a farthing; — we need not be surprised

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(in an age so prone to suicide) to find many hot headed persons, under such influences, destroying themselves rather than suffer their sense of honor to be outraged. At this moment, a soldier in the——garrison has attempted to destroy himself by starvation; for nine days, he had tasted nothing, when he was discovered and his design frustrated. He had stolen two gr. six pf. from a comrade, who threatened to inform against him, and the thief fearing the ignominious punishment, attempted to avoid it by starving himself to death. The passion of love has occasioned many victims. Who is ignorant of the general excitement made in the city of Berlin in the year 1811, by the suicide of Heinrich Von Kleist and his mistress, who were both found dead, and from a letter it appeared that the enthusiastic poet had first shot his mistress and then himself. I have found in the records two cases very similar to the above, occurring in the lowest ranks of life. They are as follows: Bl. an artisan and W. a servant maid, his mistress, both residents of Berlin, the former twenty and the latter twenty-one years of age, were on the 14th of May, 1824, found dead on the road to Potsdam. From a letter written by Bl. and left in an adjoining tavern, it appeared, that on account of their unhappy passion, he had first shot W. and then himself. On the 22d of October, 1820, H. a subaltern officer in the hussars, and Z. a prostitute, were found, tied together with a shawl and the belt of H., in the Spree. The cause of the deed, as stated in a letter of H. was the unwillingness of H's father to consent to their marriage!—What parallels!—At one time a tragic poet and a romantic lady,—at another, an inferior officer and a strumpet.*

*The following melancholy occurrence is stated to have happened on the 3d of June, 1824, in the Island of St. Thomas, in the West Indies;—A respectable Danish gentleman of the name of Gardiner, was informed that his wife, a very lovely woman, about twenty years of age, had formed an illicit connection with a young Englishman or German very highly esteemed; the husband determined to go to Copenhagen, and place his wife

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The vice of gambling, fortunately, is not so prevalent here as in Paris; and where debts and prodigality have been and still are the principal causes of suicide, there intemperance and luxury must exist: the distress occasioned by hazardous speculations and schemes (which has become a mania in Paris) must, in many recent cases, likewise, be considered as a cause. This passion for growing rich by speculation, should be particularly noticed, because it is a *novel* cause of suicide; one, however, which, although formerly unknown has within a few years been productive of many cases of suicide.

I have previously explained, why drunkenness, in our tables, does not appear numerically as the principal cause of suicide. If any persons still remain incredulous upon this point, let them consider the following facts: "that in Berlin in 1822, there were *five hundred and fifty* spirit shops and taverns." And also, according to the latest informations, in the same city 6540 private dwellings—so that the result is, that *in Berlin there is a spirit shop to every fourth house.* Apportioning this number of shops among the inhabitants of Berlin, the same result will appear in a different light. The population of Berlin, including the military, in the year 1822, according to the census, was 199,283. *Hence each shop was supported by* 130 *persons.* Deduct from this number, those who do not frequent these shops, viz: the higher and middle

under the care of her mother. Their departure was fixed for the 6th of June, while the lover was intending about the same time to go by *ship* to Puerto-Capello. Everything was in readiness for their journey, when Mrs. Gardiner, on the 2d of June, left her husband's house, and went to that of her lover. She locked the door after her, and soon the report of two pistols was heard. A crowd having collected in front of the house, burst open the door, and discovered the young woman lying, with her face much disfigured, lifeless, upon the bed, and the young man at some distance, upon the floor, also dead. It was conjectured, that at her request, he first shot her and then himself,—as in a letter to her husband, she confessed her infidelity, and besought him, to marry a person more worthy of him. (Berliner Voss. Zeit. 3 Sept. 1824.)

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classes, children and the sick, and we shall be astonished to see by how few persons each shop is supported, and the immense sum expended by the lower classes for spirituous liquors.

A comparison with Paris will not be inappropriate. There the consumption of ardent spirits appears to be annually increasing, while according to *Chateauneuf*,* the consumption of wine seems to be decreasing in the same ratio. In the year 1809 the number of *hectoliters* of brandy consumed in Paris was 20,000, in 1817 it was 80,000. Nevertheless, the comparison, at the present day, between Paris and Berlin, is very unfavorable to the latter city. The excellent and accurate *Recherches statisques sur la ville de Paris*, edited by count *Chabrol*† shows (table 81) that there were 2333 wine shops, (resorts of the lowest classes similar to the spirit shops in this country) and 416 spirit shops. Dividing the number of places, where ardent spirits are sold among the number of private dwellings in Paris, the result is *one shop to every ninth house;* consequently computing the population of Paris at 714,000 each shop is frequented by 260 persons, just twice as many as in Berlin.‡

Former writers have paid attention to the ratio of the different *modes* of suicide to each other; and in a subject of so much importance, no investigation is destitute of interest. Why is it that in England, and as has been previously shown, also in this country, hanging is the usual mode of self-destruction, while in Paris the suicide throws himself from a bridge, or out of a window, or blows out his brains with a pistol? Is it not indicative of the national tempera-

* Recherches sur les consommations de tout genre de la ville de Paris, etc., Paris, 1820—21, 2 Th. 8vo. i. 57.

† Paris, 1821 and 1823–4.

‡ Colquhoun, in his well-known work, heretofore quoted, gives the number of licensed public houses in London, (for twenty-four years!) at 5240, and computes that the working classes alone expend annually on beer and strong liquors, upwards of three millions of pounds sterling.

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ment? The Englishman and the German buries his grief in private, and in his solitary chamber quietly puts an end to his joyless existence. The Frenchman, however, likes, even at this fearful moment, to bring himself upon the scene, and to end his life with *eclat*, to afford to the quarter where he resides, an excellent spectacle which shall call together his neighbors to mourn for him; and hence he is desirous to see and hear at the moment he is leaving the world. The modes of suicide prevailing in Berlin, from 1758 to 1774, were published by Mohsen: the same ratio from 1812 to 1821 is more clearly seen in the following table, extracted from the annual summaries in Wadzeck's Journal.

Modes of Suicide in Berlin.

	By hanging.	Shooting.	Drowning.	Cutting their throats.	Stabbing.	Throwing themselves out of windows.	Poisoning.	Opening an artery.	Total.
1812	11	15	5	3	..	1	..	1	36
1813	14	8	10	....	5	3	..	....	40
1814	18	9	1	4	1	1	..	....	34
1815	22	13	3	4	2	.....	..	....	44
1816	29	25	9	2	6	5	2	....	78
1817	24	27	6	4	3	4	2	....	70
1818	27	16	6	....	1	1	1	....	52
1819	23	26	4	4	1	.....	4	1	63
1820	32	12	8	5	..	1	1	....	59
1821	34	12	8	1	..	3	..	1	59
	234	163	60	27	20	19	10	2	*535

As a *pendant* to this table, I add the following, compiled from the data furnished by the *Recherches Statistiques sur la Ville de Paris.*

* Dr. Burrows, in his Commentaries, &c. on Insanity, London, 1828, p. 447, notices a difference of twenty-five in the totals.—W.

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Modes of Suicide in Paris.

	Drowning.	Shooting.	Suffocation by charcoal.	Throwing themselves from a window.	Hanging.	Cutting their throat and stabbing.	Poisoning.	Total.
1817	160	46	35	39	36	23	13	352
1818	131	48	35	40	27	28	21	330
1819	148	59	46	39	44	20	20	376
1820	129	46	39	37	32	28	14	325
1821	127	60	42	33	38	25	23	348
	695	259	197	188	177	124	91	1731

The majority of suicides in Berlin select (as appears by the above table) as the mode of their death, that of hanging; for if we consider as cases of suicide one half of all those found in the water,* still this number would not be equal to that by hanging. Suicide by *shooting* is the next.

I need hardly remark that this mode of sucide is almost always chosen by men, nevertheless from the total of 163 suicides under this head, *four* females were found sufficiently courageous to select this most uncertain mode of death. It should not be forgotten, that most of the cases of suicide of this kind, took place after the great wars of 1816 and 1817, when the people generally had become accustomed to the use of fire-arms. The distressing mode of death by stabbing, and cutting the throat was made use of by forty-nine persons. With the exception of three merchants and one student, these cases of suicide were entirely from the lowest class of people: and consisted principally of journeymen belonging to the lesser trades, besides ten *females; cæteris paribus*, a far less number of females than these drowned, since of sixty persons drowned, eighteen were women and girls. By far the larger proportion of females, however, have destroyed themselves by jumping

* It should be observed that the cases of attempted suicide, which have come to the public knowledge, are included.

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out of windows, since of nineteen enumerated under this head, no less than twelve were females. And here I might ask, whether a comparison with the citizens of Paris is improper, and also, whether the opinion heretofore expressed concerning them is not confirmed? A Frenchman, by the sensibility and versatility of his nervous system, as well as his vanity, has much similarity to woman. Death by poisoning is selected only by few persons; because the particular action of poisons is known only by few, and the means of procuring poisons, under the present admirable condition of our medical statutes, are very difficult. This mode of death, for the above reasons, is not usually made use of by the lower classes: of the ten cases of suicide found under this head, two were merchants, one a physician, one a painter (by each of whom poison could easily be procured)—three men unknown and three females. It is remarkable, how very frequent poisoning by sulphuric acid, accidentally and intentionally, has, in late years, become in this country; although in most cases death has not ensued. By the introduction of English blacking, (*stiefelwichse,*) lucifer matches, &c. this preparation has become an indispensable requisite in every family, constantly on sale at, and easily procurable from the apothecary shops, because in all the regulations concerning the sale of poisons, none of the mineral acids are included.

A question of the highest importance, yet remains unanswered. Authors, of great eminence, have drawn attention to the connection in certain countries between the propensity to suicide, and the prevailing religion; and have arrived at the conclusion, that suicide is more rare in Catholic, than in Protestant countries. BLUMENBACH remarks, that from investigations in Switzerland, he had found, that suicide was more prevalent in the *reformed* canton of Emmenthal, than in London,* and that in general suicide was more frequent in Protestant Switzerland,

* Medic, Biblioth, II. 1, p. 164.

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than in the Catholic cantons.* If he had added however, that in the Protestant cantons, the inhabitants were *lace-weavers*, leading a sedentary life, and living in damp cellars, while in the small Catholic cantons, they were mountaineers and farmers, the influence of their religion would appear to have exerted less influence upon the difference of their propensity to suicide, than their physical mode of life. Nevertheless *Blumenbach* adds the following remark: "it is very generally proved, and is worthy of enquiry, whether the various religious prejudices, to which the majority of uneducated Catholics cling, or some of them may not be beneficial preventives against this horrible propensity." Adopting the same reasons, that religious prejudice fetters the minds of orthodox Catholics, prohibiting all thought and scruple about religion, etc. Burrows an eminent English author, heretofore cited, states that insanity is less common in Catholic, than in Protestant countries. Arnold† and Osiander‡ also, maintain the opinion, that suicide is more prevalent in Protestant, than in Catholic countries. The former bases his opinion, upon indulgences so easily obtained by Catholics, their bigotted attachment to their religion, the absolution of sins procured by a light ceremony, and a trifling penance, and that therefore they would be less disposed to melancholy and insanity. Osiander controverts this explanation, and thinks, that the reason is, "because that confession and extreme unction are regarded by the Catholic as sacraments, which in addition to the holy eucharist, will secure for him a blessed eternity. Hence the last and strongest wish of a true Catholic is to leave this world after the administration of the holy sacraments. But as by suicide he forfeits this happy hereafter, so only can an irreligious or

* Ibid, 170.

† Ut supra, p, 185.

‡ Beobachtungen über die Natur, Arten, Ursachen, und Verhütung des Wahnsinns und der Tollheit. A. d. E. Leipz. 1784, 8vo. p. 23.

§ Ut supra, p. 282,

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depraved Catholic intentionally commit such a crime, and enter upon an eternity, from which he has nothing to hope, except perdition. The Protestant Christian, the Lutheran and Calvinist, thinks and reasons very differently on this subject. With the faith of the thief on the cross, that the all-merciful God, through the blood of Jesus Christ, will receive the true penitent, and pardon his sins, without auricular confession, the eucharist or extreme unction, and in the declaration of the Saviour be with him to-day in Paradise, he commits self-destruction, in the certain hope, that the all-merciful will also pardon this last sin." This seems to me to be the best explanation that can be offered. An eminent theologian,* says in reference to the above remark, that the doctrines of the Catholic church relative to suicide are as strict as those of the Protestant: but the question still recurs — What are the facts as to the ratio of suicides in Catholic and Protestant countries? The following results, which embrace the whole Prussian kingdom, (containing a population of eleven millions,) and continued for five years, may afford some certain basis as to this country; and give more accurate results, than if we had compared, (as has been done) the Protestant cities of London and Berlin with the Catholic cities of Paris and Vienna, because in such large cities, a great number of other and often unknown causes are active, which make the influence of religion uncertain.

The Prussian provinces, Brandenburg, Pomerania, Saxony and East Prussia, are, with the exception of Ermelande and Eichsfeldes, almost exclusively of the reformed religion.† The proportion of suicides, in these provinces, as has been previously shown is very large, on an average greater than in the other provinces. Thus in Brandenburg, the proportion is as 14: 100,000, in Pome-

* Stäudlin, p. 279.

† For the following statements as to the proportion of religions in the different provinces, see the work already quoted: Uebersicht der Bodenfläche und Bevölkerung des Pr. Staates, p. 50, 51.

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rania 7: 100,000, in Saxony 10: 100,000, in East Prussia 7: 100,000; in the aggregate of the four provinces, as 9½: 100,000.

Next to these provinces, Silesia has the largest number of Protestants, the proportion being five-ninths Protestants to four-ninths Catholics: and the ratio of suicides as 9: 100,000.

In West Prussia where both religions are nearly equal, out of 100,000 persons there only six suicides.

The Catholic religion is predominant in the remaining four provinces of the Prussian kingdom. Posen has somewhat less than two-thirds Catholic to one-third Protestant, and only five suicides to 100,000 of the population.

In Westphalia three-fifths are Catholic and two-fifths Protestant, suicide is here reduced to the small proportion of 3: 100,000.

In both of the Rhenish provinces, Cleveberg and the Lower Rhine, the inhabitants are nearly all Catholic — seven-ninths being Catholic, two-ninths Protestant, and the ratio of suicide in the former is as 4: 100,000, in the latter only 2: 100,000.

This sketch is sufficiently intelligible. Many other causes, as climate, physical occupation, political and economical relations, etc., may exert an influence, but the fact is established, that during these five years, suicide was far more frequent in the Protestant than in the Catholic provinces. It is nearly the same among the Jews. In the four first named provinces, the proportion of Jews to Christians is as 1: 243; in Silesia 1: 125; in Westphalia 1: 110; in the two Rhenish provinces 1: 100; in West Prussia 1: 48; and in Posen 1: 16. The provinces in which the greatest number of Jews reside, are not remarkable for a large proportion of suicides, but the reverse.

In the capital a similar ratio exists, for the cases of suicide among the Catholics and Jews, during the last ten or twelve years, have been very few. We have heretofore

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spoken of the Catholics; the key to this phenomena among the Jews is at hand. Formey, an eminent physician, too early lost to science, says that "among the Jews, we find few drunkards; and I am convinced, he adds, that the cause is solely for the reason, that they do not frequent the spirit shops where they would be ridiculed and despised." Thus in the first place, the principal cause of suicide, drunkenness, does not exist among the Jews. In the second place, a strong, painful love of life, as the *summum bonum*, characterizes this nation. Their facility for business prevents them from falling into poverty and distress, and the remarkable care of the community, particularly of the richer members, preserves them mentally and physically from want and wretchedness. In fact, this solicitude for those in misfortune is the principal cause, that for twelve years from 1812 to 1823 only three members of the French (evangelical) colony, consisting of 6000 persons, committed suicide: while this union afforded very many, various and powerful aids to its unfortunate, and destitute members.

I cannot conclude this essay, without referring to a subject which was recently introduced in the trial of the famous Fonk, which is not treated of in any medical work, but is not without interest to the medical jurist; I mean the relation, in which, under given circumstances, the number of suicides stands to that of murders and homicides. If a dead body were found from which it was difficult or impossible to ascertain, whether the death was occasioned by suicide or murder, it might for instance, in a country where suicide was very prevalent and murder rare, be presumed with *some* degree of probability, that in the given case the death was by suicide, and *vice versa*. Indeed Benzenberg, an ingenious advocate of Fonk, in the essay above quoted, from the fact of the extraordinary majority of suicides above murders in a Rhenish town Elber-

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feld, laid the foundation for his opinion that the clerk Conen was not murdered, but fell by his own hand. I add the following table of the number of suicides and murders in all the cities of the Prussian kingdom during five years: and if the medical jurist should give to it only the value, that it really deserves, still in reference to morals, it will not be considered as irrelevant.

	Suicides.	Murders and Homicides.
1818	339	27
1819	452	24
1820	475	40
1821	456	40
1822	442	45
	2164	176

Where the proportion is as one homicide to twelve suicides. By more strict investigations the remarkable fact appeared, very extraordinary in reference to the attempt made on the trial of Fonk, that in no one of the Prussian provinces, did the number of suicides approximate so nearly to that of murder, as in the cities of the province of the Lower Rhine. They are as follows:

1818	4	suicides and	3	murders.
1819	14	do	1	do
1820	11	do	6	do
1821	17	do	14	do
1822	7	do	14	do
	53		38	

a proportion which is shown by no other part of the kingdom.

Thus much upon a subject of the highest importance, to which I would direct the attention of philanthropists, and upon which, it was perhaps the time, *ein wort zu sprechen.*

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APPENDIX.

I have endeavored to render the preceding translation as strictly literal as the idiom of the two languages would permit, and have collected together a few statistical facts relative to suicide, which have been published since Dr. Casper's work was written.

Dr. Burrows, in his Commentaries on Insanity, assigns as an influential cause of suicide, not alluded to by Dr. Casper, "*the rapid and immense increase of periodical journals.*" His remarks may not be uninteresting:

"There is another and still more influential cause, though unnoticed, of the increase of suicide, and that is the rapid and immense increase of periodical journals. There are few persons now, comparatively, in this country, who cannot read; and the means of so doing is amply supplied by a teeming and cheap press. As the eagerness for this species of gratification has augmented, the public taste has become more vitiated and debased, and hence nothing is found so attractive as tales of horror and of wonder, and every coroner's inquest on an unhappy being who has destroyed himself, is read with extraordinary avidity. Not content with domestic horrors, we see our most respectable diurnal papers industriously selecting from every foreign source these lamentable proofs of the degradation of humanity, and dressing them in colors to excite commiseration rather than the abhorrence of Christian feeling.

"Who can doubt that the frequency and general diffusion of these reports familiarise the mind of the lowest ranks with suicide, and thus diminish the detestation which ought to be felt at the mere contemplation of acts so repugnant to GOD, and derogatory to man." (pp. 447–8, Lond. ed. 1828.)

M. HOFFMAN, director of the statistical bureau of Berlin, in a "Statistical view of the births and deaths in the Prussian States in the fifteen years, from 1820 to 1834," (translated from the German by Walter Ruding Deverell Esq. and published in the Transactions of the London Statistical Society,)

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gives the following tabular statement of those who died violent deaths from a variety of accidents:

Years.	Males.	Females.	Total.
1820–22	12,452	3,980	16,432
1823–25	13,033	4,031	17,064
1826–28	13,997	4,140	18,137
1829–31	14,325	4,419	18,744
1832–35	15,710	4,279	19,989
In the 15 years,	69,517	20,849	90,366

In this number of cases of violent death there is included the following number of suicides; namely, of

Males,	13,699
Females,	2,981
Total	16,680

The remaining portion of deaths are registered as cases of fatal accidents: namely, of

Males,	55,818
Females,	17,868
Total,	73,686

"The difference," he adds, "in the amount of these two classes of deaths is so far inconsequential as that, in numerous instances, it cannot with certainty be ascertained whether or not a suicide has been committed. The probability is, that cases of suicide are much more numerous than the police are aware of, and consequently more than are registered as such in the list of deaths. Many cases of suicide are entered in the Bills of Mortality not even as *fatal accidents*, but as deaths occasioned by apoplexy and other sudden attacks of disease. Such instances of misnomer probably occurred more frequently in past years than at present; it is therefore not unreasonable to conclude that, if more of these instances were publicly known, the number of suicides here given would be considerably increased.

In each triennial period which lies between two censuses the

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amount of accidental and violent deaths is increased, and indeed in a ratio something greater than that of the increase of population. The mean numbers of the inhabitants for 1820–22 are to that of 1832–34 as 1,000,000 to 1,165,484; so that to correspond with the ratio of increase in the population, the number of violent deaths which in the triennial period 1820–22, was 16,432, should in 1832–34 have been 19,150, but the number registered in this latter period is 19,989.

The progress of improvement in morals and manners, and the more general diffusion of knowledge and of wealth, ought naturally to diminish the number of these fatal occurrences; but the increase of human activity, self-confidence, and a sense of honor, often ill-founded and fatuitous, have certainly served to increase them.

On an average, in 1,000,000 males who died, there were 24,697 instances of violent death; and in 1,000,000 females who died, the number of deaths from similar causes was 7,800; that is, very nearly 1 in 40 among the males, and among the females 1 in 127."

The following notices on the statistics of suicide were collected from *Wildberg's Jahrbuch* d. ges. S. A. für 1837 and published in the British and Foreign Medical Review for July 1837.

PARIS. The number of suicides in Paris were for

1830	269	1833	333
1831	377	1834	436
1832	369	1835	477

This is in the ratio of about *one* suicide out of every *one hundred deaths;* while observes the reporter, in England, the the land of suicide (!) the proportion is not greater than *one* out of every *five hundred deaths.* (Although we think that it cannot be denied that the average number of suicides, in relation to the total deaths, is considerably less in England than in France, we much doubt whether the ratio here given, of 1–500ths, be correct; since so little attention is paid by the government of this country to the collection and publication of the details. B. & F. M. R.)

NAPLES. During the year 1836, out of a population of

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357,283 souls, there were not more than thirty-one cases of suicide.

ST PETERSBURGH. The number of suicides in this capital, for the years 1831, 1832 and 1833, did not exceed 104; which presents an average of about thirty-four annually. They were mostly confined to the lower classes of society.

BOHEMIA. In this kingdom during the year 1835, the deaths amounted to 119,438, of these there were 188 cases of suicide, which is in the ratio of about one suicide out of 600 deaths.

LOWER AUSTRIA. From the 1st November, 1835, to the end of October, 1836, there were 49,556 deaths, and out of these 109 cases of suicide. This gives a ratio of about one in 457. *Wildberg's Jahrbuch*, d. ges. S. A. 3 B. 2 h. 1837.

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Art. X. Statistics *of the* Medical Colleges *of the United States.* *By* T. Romeyn Beck, M. D.

[Communicated by the author.]

I have for some time past been engaged in collecting and arranging the statistics of our medical colleges. Apart from the wish to ascertain how many persons in the United States were annually devoting themselves to the study of the science, I was further desirous of testing by figures, the confident but discordant assertions that from time to time have been made concerning the number of students in this state, and the proportion that have left it to attend medical lectures in other states. With the increase of materials, I have also found myself enabled to add some information concerning the number of graduates of the respective colleges and their places of residence.

I trust that the arrangement of the above information in a tabular form, will be both interesting and useful. It must certainly prove useful since it substitutes truth in the place of assertion—and at the same time corrects the wretched inaccuracy of those works to which we are at present accustomed to look for correct statistics. I have however to state that respecting several institutions, my information is not entirely complete, and I must rely upon the liberality of those who are or have been attached to them to supply the deficiencies.

I propose publishing in the present number of the Transactions, the statistics of a few colleges of which I have obtained all the information needed or intended to be used in the present communication. Through this, the plan which I purpose following will be understood.

1. UNIVERSITY OF PENNSYLVANIA.

The sources from which I have obtained the succeeding tables are—a series of Annual Catalogues of the students matriculating from 1830-31 to 1838-39 inclusive.—

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"A Catalogue of the Medical Graduates of the University "of Pennsylvania, with an historical sketch of the origin, "progress and present state of the Medical Department. "Published by direction of the Medical Faculty of the "University." Philadelphia, 1836. For all of these I am indebted to the kindness of my valued friend, the Rev. Dr. Ludlow, Provost of the University of Pennsylvania.

I have also consulted Professor Wood's Address to the Medical Graduates of the University, March 1836, with its appendix, and the volumes of the Eclectic Repertory—Chapman's Philadelphia Journal of the Medical and Physical Sciences, both series—the American Journal of the Medical Sciences, and of Hazard's Register of Pennsylvania.

The Medical School of Philadelphia was founded in 1765. It does not fall within my plan to notice its history further than to state, that in 1791, a union was effected between the College of Philadelphia and the University of Pennsylvania, (both of whom had established medical faculties) and the school was thereafter, and until the present time, is continued under its present title.

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TABLE I.

Medical Graduates of the University of Pennsylvania, from 1791 *to* 1838 *inclusive.*

	No. of Graduates.		No. of Graduates.	
1791	5	1816	70	
1792	7	1817	74	
1793	10	1818	87	
1794	8	1819	102	
1795	4	1820	78	
1796	4	1821	66	
1797	15	1822	77	
1798	12	1823	101	
1799	8	1824	96	
1800	10	1825	111	
1801	10	1826	114	
1802	22	1827	131	
1803	15	1828	133	
1804	15		—	1951
1805	24			
1806	21	1829	109	
1807	31	1830	127	
1808	60	1831	151	
1809	63	1832	134	
1810	65	1833	117	
1811	65	1834	145	
1812	70	1835	135	
1813	61	1836	132	
1814	62	1837	162	
1815	44	1838	157	
			—	1369
		Total,		3320

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TABLE II.

Residence of the Graduates from 1829 *to* 1838 *inclusive.*

	Pennsylvania.	Virginia.	North-Carolina.	South-Carolina.	Georgia.	New-York.	New-Jersey.	Delaware.	Dist. Columbia.	Ohio.	Tennessee.	Alabama.	Kentucky.	Louisiana.	Maryland.	Mississippi.	Indiana.	Illinois.	Florida.	Missouri.	Vermont.	Rhode-Island.	Maine.	Connecticut.	Massachusetts.	New Hampshire.	U. S. Army.	Nova-Scotia.	Canada.	West-Indies.	Europe.	South America.	Total.
1829	41	23	6	6	4	1	7	3	1	3	1	2	1	2	2	..	..	..	..	..	..	1	1	2	..	..	..	1	..	1	..	..	109
1830	37	44	8	3	7	4	8	3	2	..	1	1	1	1	3	1	..	..	..	..	1	1	..	..	..	..	1	..	1	..	..	1	..	127
1831	35	61	11	7	9	1	6	1	1	..	2	3	1	1	5	2	..	..	1	..	..	..	..	1	1	..	..	..	1	..	..	1	..	151
1832	35	45	10	5	5	7	5	3	1	..	1	4	..	4	6	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	1	..	134
1833	33	43	4	3	6	2	5	3	4	..	1	2	2	2	2	1	..	..	..	..	..	1	1	2	..	..	..	..	..	..	..	..	..	117
1834	27	43	19	17	7	6	2	2	1	1	2	2	2	2	4	1	..	..	..	..	..	..	1	..	1	..	..	2	2	1	..	..	..	145
1834–5	28	38	11	3	7	3	8	3	2	3	6	3	1	3	2	4	..	..	1	..	..	2	..	2	..	1	..	..	1	2	1	..	..	135
1835–6	31	36	3	9	6	1	5	4	1	1	4	6	4	3	3	4	..	1	1	..	..	1	1	..	..	1	..	..	..	2	3	1	..	132
1836–7	28	41	14	7	12	6	7	2	1	..	8	10	3	4	1	4	1	1	..	..	..	1	2	2	3	1	..	..	2	..	1	..	..	162
1837–8	24	44	16	8	12	8	3	3	1	1	6	9	3	1	6	4	..	..	1	..	..	1	..	3	1	..	..	..	1	1	..	..	..	157
	319	418	102	68	75	39	56	27	15	9	32	42	18	23	34	21	1	2	4	1	1	8	6	13	6	3	1	4	6	7	7	1	1369

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In Mr. Hazard's valuable "Register of Pennsylvania," (and which I regret to say is now discontinued,) vol. 2, p. 112, the residences of the graduates from 1791 to 1828 are given. Taking the summary as there stated, and adding the results obtained from Table 2, we shall obtain the respective totals for forty-eight years.

TABLE III.

	Residences from 1791 to 1828 inclusive.	Residences from 1829 to 1838 inclusive.	Total
Pennsylvania,	473	319	792
Virginia,	632	418	1050
South-Carolina,	151	68	219
Maryland,	117	34	151
New-Jersey,	100	56	156
North-Carolina,	85	102	187
Georgia,	77	75	152
Delaware,	56	27	83
Kentucky,	35	18	53
New-York,	28	39	67
District of Columbia,	24	15	39
Massachusetts,	19	6	25
Tennessee,	14	32	46
West-Indies,	12	7	19
Mississippi and Louisiana,	9	44	53
Ohio and N. W. Territory,	9	Ohio, Ia. & Ill. 12	21
Connecticut,	5	13	18
Canada,	5	6	11
New-Hampshire,	4	3	7
Alabama,	4	42	46
Rhode-Island,	4	8	12
Missouri,	3	1	4
Maine,	1	6	7
Great Britain,	7		
Brabant,	1	Europe, 7	16
Swabia,	1		
Unknown,	75		75
Carried forward,	1951	1358	3309

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	From 1791 to 1828.	From 1829 to 1838.	
Brought forward,	1951	1358	3309
	Florida,	4	4
	Vermont,	1	1
	U. S. Army,	1	1
	Nova-Scotia,	4	4
	S. America,	1	1
	1951	1369	3320

The number of students matriculating, is stated in several of the publications already referred to, as follows:

TABLE IV.

1810–11	406	1825–26	440
1811–12	387	1826–27	441
1812–13	349	1827–28	409
1813–14	345	1828–29	362
1814–15	319	1829–30	421
1815–16	388	1830–31	410
1816–17	436	1831–32	390
1817–18	465	1832–33	368
1818–19	422	1833–34	431
1819–20	330	1834–35	392
1820–21	325	1835–36	397
1821–22	357	1836–37	401
1822–23	455	1837–38	380
1823–24	424	1838–39	402
1824–25	487		

Notes.—1831–22. Dr. Wood states the number to be 886, but the annual catalogue includes 390 names.

1832–33. Dr. Wood states the number to be 367; the annual catalogue 368.

1833–34. Dr. Wood gives the number as 432; the annual catalogue 431.

1834–35. Dr. Wood gives the number as 390; the annual catalogue 392.

1835–36. Dr. Wood gives the number as 398, and the annual catalogue agrees with this, but on adding together the summary, the total will be found to be 397.

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On adding together the number of students from 1816–17 to 1827–28 inclusive, the total will be found to be 4991. Mr. Hazard (Register of Pennsylvania, vol. 2, p. 112) gives the following residences.

From	Pennsylvania,	1721
"	Virginia,	1371
"	South-Carolina,	316
"	North-Carolina,	299
"	New-Jersey,	279
"	Georgia,	246
"	Delaware,	154
"	Maryland,	154
"	New-England, New-York and Canada,	169
"	Western Country,	201
"	Louisiana,	8
"	Mississippi,	3
"	Florida,	1
"	Europe,	3
"	West-Indies,	8
"	Alabama,	19
"	District of Columbia,	30
"	Unknown,	9
		4991

The residences of the students from 1830–31 to 1838–39, will be seen in the following table.

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TABLE V.

	Pennsylvania.	Virginia.	North-Carolina.	South-Carolina.	Georgia.	Maryland.	Alabama.	Mississippi.	Missouri.	Tennessee.	Kentucky.	Louisiana.	New-England.	New-York.	New-Jersey.	Dist. Columbia.	Indiana.	Illinois.	Michigan.	Ohio.	Florida.	Delaware.	West-Indies.	Canada.	Nova Scotia &c.	U.S.army & navy	Europe.	South-America.	Total.
1830–31	137	124	29	12	14	13	10	3	1	5	1	6	5	10	20	3	..	..	..	1	1	11	..	1	1	2	..	..	410
1831–32	143	114	22	8	15	11	9	2	1	4	2	9	9	13	14	3	..	..	..	..	..	6	1	..	..	3	1	..	390
1832–33	120	103	30	15	14	9	7	4	..	2	4	5	10	10	19	7	..	..	..	..	..	5	2	1	1	..	..	..	368
1833–34	118	111	37	22	25	12	8	7	1	4	3	6	9	16	15	4	..	..	..	8	..	8	4	2	4	5	2	..	431
1834–35	123	87	28	9	12	8	9	8	1	13	5	6	12	12	23	2	..	1	..	9	1	8	9	1	..	2	2	1	392
1835–36	100	90	26	15	19	6	19	7	1	9	9	9	15	13	22	3	1	2	..	3	2	9	5	2	1	3	5	1	397
1836–37	97	90	39	16	22	5	20	11	1	12	4	5	16	13	23	1	1	2	..	..	1	7	1	3	4	4	3	..	401
1837–38	82	103	41	12	20	16	18	6	..	10	3	3	11	13	15	2	2	..	1	4	3	6	2	2	1	2	1	1	380
1838–39	89	102	51	11	25	10	13	6	1	13	6	8	9	14	12	4	..	.	1	6	3	6	2	2	..	5	3	..	402
	1009	924	303	120	166	90	113	54	7	72	37	57	96	114	163	29	4	5	2	31	11	66	26	14	12	26	17	3	3571

Annual average of students from the state of New-York, 13.

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I also subjoin the following as of some interest.

No. Students attending their	1830–31	1831–32	1832–33	1833–34	1834–35
1st course Lectures,.	208	185	193	237	197
2d course, ...	143	121	108	136	
3d course, ...	39	46	50	47	195
4th course,.....	5	7	17	11	
Graduates.....	15	31	.....	.....	
	410	390	368	431	392

2. MEDICAL SCHOOL OF TRANSYLVANIA UNIVERSITY, LEXINGTON, KENTUCKY.

The following table of Medical Students and Graduates at this school, is taken from a Transylvania Medical Journal Extra, published in 1838, and which also contains an alphabetical catalogue of all the graduates from 1820 to 1838 inclusive.

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No. 1.

Years.	Number Students.	Number Graduates
1819–20	37	7
1820–21	93	14
1821–22	138	37
1822–23	171	51
1823–24	200	46
1824–25	234	56
1825–26	281	65
1826–27	190	53
1837–28	152	53
1828–29	206	40
1829–30	199	72
1830–31	210	54
1831–32	215	74
1832–33	222	69
1833–34	262	66
1834–35	259	83
1835–36	262	75
1836–37	242	78
1837–38	227	64
	3800	1057

Residence of the Graduates.

No. 2.

This table is compiled from the alphabetical table already referred to.

Kentucky,	406	Indiana,	11
Tennessee,	157	Pennsylvania,	2
Alabama,	108	Delaware,	1
Mississippi,	64	District of Columbia,	1
Virginia,	73	New-York,	3
Georgia,	43	Florida,	1
South-Carolina,	81	Michigan,	2
North-Carolina,	26	Arkansas,	1
Louisiana,	10	Maryland,	2
Missouri,	19	Texas,	1
Ohio,	26	Ireland,	5
Illinois,	14		1057

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Residence of Students.

The number of students, as given in successive volumes of the Transylvania Journal, differs somewhat, (but not materially) from the numbers stated in the first table. I mention this, because the following are compiled from the annual catalogues. The differences are as follows:

In 1828—29	According to the catalogues the number of students was,	203
1830—31	do	211
1831—32	do	213
1832—33	do	226
1833—34	do	250
1834—35	do	255
1835—36	do	260

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No. 3.

Residence of Students for 11 *Years*, (1828–29 *to* 1838–39 *inclusive.*)

Years.	Kentucky.	Tennessee.	South-Carolina.	Alabama.	Virginia.	North-Carolina.	Georgia.	Mississippi.	Missouri.	Louisiana.	Ohio.	Florida.	Maryland.	Indiana.	Illinois.	New-York.	Arkansas.	Pennsylvania.	Delaware.	New-Hampshire.	Massachusetts.	Connecticut.	Texas.	Europe.	Michigan.	Total.
1828–29	69	32	20	19	16	14	14	9	4	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	2	203
1829–30	59	30	29	23	22	6	16	6	3	...	1	...	1	3	...	...	...	...	...	...	...	...	...	...	...	199
1830–31	59	40	26	23	23	8	16	8	1	1	3	...	...	...	2	1	...	...	...	...	...	...	...	...	...	211
1831–32	62	41	21	21	14	11	22	12	2	1	...	...	...	2	...	...	2	...	...	...	...	2	...	...	...	213
1832–33	75	34	13	22	20	12	18	21	3	1	2	1	...	...	1	1	...	1	...	...	...	...	1	...	...	226
1833–34	106	39	10	25	20	7	11	19	4	2	5	1	...	3	7	...	...	1	...	...	...	...	...	...	...	260
1834–35	126	37	5	25	10	4	9	19	6	2	5	...	...	1	4	...	1	...	1	...	...	...	...	...	...	265
1835–36	125	45	4	32	5	5	5	10	10	3	6	...	...	2	4	...	1	...	...	2	...	1	...	...	...	260
1836–37	94	39	11	31	6	5	13	18	8	2	1	...	1	5	3	1	...	2	...	...	...	...	1	1	...	242
1837–38	82	53	6	15	2	4	16	17	10	1	4	...	...	...	2	5	2	3	...	...	1	...	2	1	...	227
1838–39	106	25	4	19	8	5	7	10	5	2	2	...	4	3	4	1	3	2	...	...	...	...	1	...	...	211
	963	415	149	255	146	81	147	149	56	17	30	3	6	21	30	6	8	9	1	2	1	1	4	5	2	2507

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I received the Catalogue of the Transylvania University for 1838–39 subsequent to the publication of the previous pages, but have added the residence of the students for that period in the table. On summing up these with the number contained in No. 1, the total will be found to be 4011. It is however stated in the Transylvania Journal, vol. 12, p. 247, that the whole number of pupils has been 4031.

So also if the graduates of 1838–39 be added, the total of graduates will be 1108. In the same Journal it is said to be 1112.

The residence of the graduates of 1838–39 was as follows:

Kentucky,	25	North-Carolina,	1
Tennessee,	10	Maryland,	4
Mississippi,	5	Arkansas,	1
Alabama,	2		—
Missouri,	1		51
Georgia,	2		

The medical department of Transylvania University was, I believe, founded or incorporated in 1818, but I find it mentioned in the Transylvania Journal of Medicine, vol. 11, p. 498, that the school was organized in the autumn of 1817, — that the class of students at the end of the session numbered twenty, and that the degree of M. D. was conferred on one candidate. "*This was the first medical degree conferred west of the mountains.*"

Erratum.—On page 176, 1833–34, for 250 read 260.

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3. WILLOUGHBY UNIVERSITY OF LAKE ERIE.

This institution went into operation in the autumn of 1835.

Number of Students.

		Authority.
1835–36	23	Catalogue.
1836–37	51	do
1837–38	55	do
1838–39	40	do

Residence of Students.

	1835–36	1836–37	1837–38	1838–39
Ohio,	16	33	39	28
New-York,	4	10	9	5
New-Hampshire,	1	.....	.....	.....
Pennsylvania,	2	1	1	1
Michigan,	.....	3	3	2
Connecticut,	.....	2	2	2
New-Jersey,	.....	1	.....	.....
Vermont,	.....	1	1	1
Canada,	.....	.....	.....	1
	23	51	55	40

Graduates.		Residences.	1836.	1837.	1838.	1839
1836,	5	Ohio,	4	4	4	7
1837,	6	New-York,	1	2	2	1
1838,	8	Michigan,	..	..	2	..
*1839	8		5	6	8	8

*Boston Med. and Surg. Journal, v. 20, p. 102.

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4. COLLEGE OF PHYSICIANS AND SURGEONS OF THE WESTERN DISTRICT OF THE STATE OF NEW-YORK, FAIRFIELD, HERKIMER COUNTY.

[Incorporated June 12, 1812.]

Number of Students.

1813–14	33	1827–28	171
1814–15	40	1828–29	158
1815–16	38	1829–30	160
1816–17	28	1830–31	182
1817–18	41	1831–32	205
1818–19	48	1832–33	190
1819–20	41	1833–34	217
1820–21	43	1834–35	197
1821–22	62	1835–36	163
1822–23	91	1836–37	164
1823–24	96	1837–38	142
1824–25	120	1838–39	114
1825–26	130		
1826–27	144		3018

No. from 1821–22 to 1838–39 inclusive, 2706.

The above numbers are taken from the official reports to the Regents of the University. In 1821–22 an annual catalogue was published, and this has been continued ever since.

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No 1.

Residence of Students from 1821 *to* 1839 *inclusive.*

	New-York.	Canada.	Massachusetts	Vermont.	N. Hampshire.	Ohio.	Connecticut.	New-Jersey.	North Carolina.	Georgia.	Maryland.	Rhode Island.	South Carolina.	Virginia.	Indiana.	Pennsylvania.	Maine.	Michigan.	Illinois.	Oregon.	Wisconsin.	Total.
1821–22	53	2	3	1	2	1																62
1822–23	85		1		2	1	1	1														91
1823–24	90	3			1	1				1	1											96
1824–25	109	1		2	2	4		2	2													121
1825–26	112	4		4	1	4			1	1	1	1	2									130
1826–27	120	6	1	4		1	1	1					3	4	1							144
1827–28	145	5	2	2	2	3	7							3		2						171
1828–29	135	5	3	1	1	2	5	1	1							4						158
1829–30	138	9	2				5	1	1			1				3						160
1830–31	155	13				1	7	3				1		1			1					182
1831–32	176	15		1		2	5					1				5						205
1832–33	168	8	2	1		3	4	1								3						190
1833–34	190	11	2			3	4	2				1				2	1	1				217
1834–35	166	10	1		1	5	6	7								1	1					197
1835–36	136	13		1	1	7	3									1	1	1				163
1836–37	129	19	1	1		4	1									6	2	1				164
1837–38	117	13	1			3	3	1			1					1			1			142
1838–39	91	11	1			1	2	2								4		1			1	114
	2315	149	20	17	13	42	54	23	6	3	1	5	5	8	2	32	2	6	1	1	1	2706

Total number of Students from other states &c. during 18 years, ... 391

Annual average, ... 21

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No. 2.

Residence of Graduates.

	New-York.	Canada.	Massachusetts.	New Hampshire.	Vermont.	District of Columbia.	South Carolina.	Georgia.	Virginia.	Connecticut.	Ohio.	Pennsylvania.	North Carolina.	New-Jersey.	Indiana.	Illinois.	Rhode Island.	Michigan.	Wisconsin.	Total.
From 1816 to 1826 inclusive.	75	1	1	2	2	1	1	1	..	....	..	..	....	..	..	..	....	..	..	84
1827	20	....	....	....	2	....	2	..	1	....	..	..	....	..	..	..	....	..	..	25
1828	24	....	2	1	1	....	....	..	3	1	1	..	....	..	..	..	....	..	..	33
1829	27	1	2	....	1	....	....	..	..	2	..	1	....	..	..	..	....	..	..	34
1830	27	3	....	....	..	....	....	..	..	1	..	1	1	..	..	..	....	..	..	33
1831	32	6	....	....	..	....	....	..	1	3	1	..	....	1	..	..	....	..	..	44
1832	32	3	....	1	..	....	....	..	..	2	..	..	....	..	.	..	1	..	..	39
1833	25	1	....	....	..	....	....	..	..	1	..	..	....	1	..	..	....	..	..	38
1834	46	4	1	....	..	....	....	..	..	2	..	2	....	..	..	..	....	..	..	55
1835	33	1	1	....	..	....	....	..	..	1	2	..	....	2	..	..	....	..	..	40
1836	24	1	....	....	..	....	....	..	..	1	3	1	....	..	..	..	....	..	..	30
1837	29	4	....	....	..	....	....	..	..	....	..	1	....	..	..	..	....	..	..	34
1838	22	3	...	....	..	....	....	..	..	2	2	1	....	..	1	1	....	..	.	32
1839	24	5	1	....	..	....	....	..	..	....	..	1	....	..	..	..	....	1	1	33
	450	33	8	4	6	1	3	1	5	16	9	8	1	4	1	1	1	1	1	554

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	No. of Graduates.			No. of Graduates.
1816	2		1828	33
1817	4		1829	34
1818	7		1830	33
1819	3		1831	44
1820	2		1832	39
1821	3		1833	38
1822	13		1834	55
1823	8		1835	40
1824	8		1836	30
1825	15		1837	34
1826	19		1838	32
	——	84	1839	33
				——
1827		25		554

5. CINCINNATI MEDICAL COLLEGE.

First Course of Lectures in 1835–6.

	No. of Students.	Authority.	Vol.	Page.
1835–36	66	Western J. Med. Sciences	9	524
1836–37	85	Do.	10	623
1837–38	125	Do.	11	498
1838–39	112	Dunglison's Med. Intellig'cr	3	64
	388			
	No. of Graduates.			
1835–36	18	Western J. Med. Sciences	9	524
1836–37	27	Do.	10	626
1837–38	23	Do.	11	669
1838–39	27	Dunglison's Med. Intellig'cr	3	64

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Residence of Students.

States.	1836–37	1837–38	1838–39	Total.
Ohio	37	57	52	146
Kentucky	11	14	11	36
Tennessee	.....	5	5	10
Pennsylvania	.....	3	2	5
Mississippi	8	4	7	19
Missouri	3	1	1	5
North Carolina	.....	1	.....	1
Alabama	5	18	14	37
Indiana	3	9	10	22
Virginia	7	6	4	17
Illinois	2	4	2	8
New-York	3	1	1	5
New England	5	2	.....	7
Michigan	1	.....	.....	1
Louisiana	.....	.....	1	1
Arkansas	.....	.....	1	1
England	.....	.....	1	1
	85	125	112	322

6. ALBANY MEDICAL COLLEGE.

[Incorporated February 16, 1839.]

	Students 1838-39.		Graduates 1838-39.
New-York,	54	New-York,	7
Vermont,	6	Vermont,	2
Massachusetts,	2	Canada,	1
Canada,	1	Maine,	1
Michigan,	1	Connecticut	1
Europe,	1	New-Jersey,	1
Maine,	1		—
Connecticut,	1		13
New-Jersey,	1		
	—		
	68		

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7. MEDICAL DEPARTMENT OF GENEVA COLLEGE, (STATE OF NEW-YORK.)

[Incorporated March 27, 1835.]

I am indebted to the Professors of Geneva Medical College, and particularly to Professor Spencer, for a complete series of Catalogues.

Number of Students.

Year.	No.	Authority.
1834–35	42	Catalogue.
1835–36	68	do
1836–37	60	do
1837–38	67	do
1838–39	76	do
	313	

Number of Graduates.

Year.	No.	Authority.
1835	6	Catalogue.
1836	8	do
1837	5	do
1838	17	do
1839	17	Circular.
	53	

Residence of Graduates.

	1835	1836	1837	1838	1839	Total.
New-York,	5	6	5	16	16	48
Massachusetts,	1	1	....	....	....	2
Upper Canada,	....	1	....	....	....	1
Pennsylvania,	....	....	....	1	....	1
Ohio,	....	....	....	....	1	1
	6	8	5	17	17	53

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Residence of Students.

States.	1834 –35	1835 –36	1836 –37	1837 –38	1838 –39	Total.
New-York,.....	40	62	49	61	68	280
Massachusetts,.....	2	2	....	....	....	4
Canada,.....	....	3	1	1	3	8
Ohio,.....	....	1	....	1	2	4
Pennsylvania,.....	....	....	3	3	....	6
District of Columbia,.....	....	....	3	1	....	4
Michigan,.....	....	....	3	....	2	5
England,.....	....	....	1	....	....	1
Florida,.....	....	....	....	....	1	1
	42	68	60	67	76	313

8. CASTLETON (VERMONT) MEDICAL SCHOOL.

I use the above name, because the institution is best known by it, and also because its *legal* title has been changed at different times. It was chartered in 1818, under the name of the *Castleton Medical Academy*, and the medical degrees appear to have been conferred by Middlebury College, (Vermont) on the recommendation of its professors, until 1827–28. As early, however, as November 7, 1822, the Legislature altered its name to that of the *Vermont Academy of Medicine*, which is still its corporate title. In 1827–28, it commenced granting medical degrees under its independent charter.

In 1835, was commenced the delivery of two courses of lectures during the year, one in the spring and the other in the autumn. Previous to this, there had been but an annual course delivered in the autumn.

No lectures have been delivered at Castleton since the autumn term of 1837.

I am indebted to Professor Armsby of the Albany Medical College (and late of the Vermont Academy of Medicine) for the use of a complete series of Catalogues from 1820 to 1837 inclusive.

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Years.	No. Students.	Years.	No. Graduates.
1818	24	1819–20	2
1819	24	1820–21	6
1820	44	1821–22	13
1821	76	1822–23	17
1822	85	1823–24	34
1823	126	1824–25	44
1824	124	1825–26	36
1825	124	1826–27	27
1826	103	1827–28	26
1827	110	1828–29	25
1828	108	1829	25
1829	101	1830	17
1830	83	1831	19
1831	65	1832	19
1832	74	1833	32
1833	93	1834	28
1834	111	Spring term, 1835	25
Spring term, 1835	65	Autumn term, 1835	22
Autumn term, 1835	135	Spring term, 1836	20
Spring term, 1836	130	Autumn term, 1836	23
Autumn term, 1836	96	Spring term, 1837	33
Spring term, 1837	95	Autumn term, 1837	21
Autumn term, 1837	115		514
	2111	No. of Honorary Graduates,	59

In the Catalogue for the Spring term of 1837, a list of students for each year from 1818 to 1836 inclusive is given. This has been used, subject to correction by the Catalogues. The difference, however, amounts only to 2, as the total in the Catalogue referred to, is 1899; and in my summary it is 1901. The reason of the discrepancy will be understood by referring to the notes.

The number of graduates is taken from the Catalogue for the Autumn term of 1837, except the last item, which I have procured from an official publication.

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Residence of Students, from 1820 to 1837, inclusive.

	1820	1821	1822	1823	1824	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	Spring 1835	Aut'n 1835	Spring 1836	Aut'n 1836	Spring 1837	Aut'n 1837	Total.
Vermont,	29	47	47	54	49	45	51	56	38	54	33	22	31	23	40	24	25	32	25	24	24	773
New-York,	9	16	21	42	51	42	35	33	37	37	25	29	30	59	55	27	36	37	48	25	29	722
Massachusetts	4	6	5	8	5	1	...	4	2	1	1	2	4	...	3	2	3	3	5	4	3	66
N.Hampshire,	2	6	9	10	9	7	6	6	3	1	...	3	...	2	1	3	1	1	1	...	...	71
Maine,	1	...	1	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
Ohio,	...	1	1	3	1	1	3	...	...	...	...	1	2	3	4	2	1	...	1	1	...	25
Canada,	...	...	1	1	1	1	1	...	...	...	...	...	1	1	1	1	3	4	13	11	5	45
Connecticut,	...	...	...	2	4	4	5	8	8	5	5	3	4	2	2	2	2	1	2	2	2	63
Rhode-Island,	...	...	...	1	...	...	...	...	...	...	1	2	1	1	1	2	1	1	...	2	...	13
Europe,	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	2	1	...	...	...	5
Georgia,	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
New-Jersey,	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1	...	1	...	...	...	...	4
Virginia,	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Nova-Scotia,	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Pennsylvania,	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	1	...	4
Illinois,	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	4
S. Carolina,	...	...	...	...	...	...	...	1	3	1	1	...	...	...	1	...	...	...	...	...	...	7
Indiana,	...	...	...	...	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...	...	3
Michigan,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	...	2	5
N. Carolina,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Unknown,	...	...	...	...	...	23	...	...	15	...	15	4	...	...	...	1	60	50	...	24	50	242
	44	76	85	126	124	124	103	110	103	101	83	65	74	93	111	65	135	180	96	95	115	2063

Annual average of Students from the State of New-York, calculating the double annual courses as separate years, 34

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NOTES.

1825. Attending the collateral branches only, 23. These are included in the 124.

1828. Attending the chemical course and collateral branches, 15. These are included in the 108. The total stated in the Catalogue is 109, but on adding the whole together, the number is one less.

1829. Attending the collateral branches of Chemistry and Natural Philosophy, 27—included in the 101.

1830. Attending collateral branches, 15—included in the 83. The Catalogue claims only 81; it should be 83.

1831. If the three physicians attending be added, as has been the practice in the tables of the colleges previously published, the total will be 65, instead of 62, as in the Catalogue.

1832. There are but 74 names on the Catalogue, although 75 are claimed. The various states are not sufficiently specified in the Catalogue of this year, but I believe the classification is nearly accurate.

1835. *Autumn Term.* Seminary students attending the chemical course, 60. These, with 75 (and not 76 as stated in the Catalogue) medical students, makes the total 135.

1836. *Spring Term.* Seminary students attending the chemical term, 50. These, with 80 (and not 79 as stated in the Catalogue) medical students, makes the total 130.

1836. *Autumn Term.* The number of students on the Catalogue is 96 only, although counted 97.

1837. *Spring Term.* Seminary students attending the chemical course 24. Medical students 71. Total 95.

1837. *Autumn Term.* Seminary students attending the chemical course, 50. Medical students 65. Total 115.

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9. COLLEGE OF PHYSICIANS AND SURGEONS, NEW-YORK.

[Incorporated by the Regents of the University, March 12, 1807.]

	No. Graduates.		No. Students.	Authority.
1811	8	1807–08	53	Regents' Annual Report.
1812	11	1808–09	73	do
1813	5	1809–10	82	Printed Catalogue.
1814	11	1810–11	84	Regents' Minutes.
1815	11	1811–12	84	Regents' Annual Report.
1816	26	1812–13	44	do
1817	40	1813–14	104	Report of the College.

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1818	35	1814–15	123	Report of the College.
1819	73	1815–16	171	Regents' Annual Report.
1820	36	1816–17	192	Report of the College.
1821	31	1817–18	142	do
1822	29	1818–19	172	Regent's Annual Report.
1823	47	1819–20	155	do
1824	45	1820–21	185	do
1825	50	1821–22	201	do
1826	34	1822–23	199	Catalogue.
1827	12	1823–24.	201	Regents' Annual Report.
1828	15	1824–25	196	Catalogue.
1829	23	1825–26	158	Regents' Annual Report.
1830	23	1826–27	88	Catalogue.
1831	33	1827–28	112	do
1832	29	1828–29	113	do
1833	38	1829–30	113	do
1834	25	1830–31	167	do
1835	30	1831–32	186	do
1836	30	1832–33	189	do
1837	23	1833–34	159	do
1838	26	1834–35	132	Report of the College.
	——	1835–36	124	Catalogue.
	799	1836–37	106	do
		1837–38	115	do
		1838–39	96	do
			4319	

The number of graduates annually, from 1811 to 1828, inclusive, and their residences, are taken from an official Catalogue published under the authority of the College in 1829; and for the subsequent years they are derived either from the annual Catalogues, or the Minutes of the Regents of the University. In some instances they have been completed by comparing the two together. It is proper to add that the honorary degrees of M. D. are not enumerated.

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The authority for the number of students during the respective years, is given in the preceding table. I have thought it proper to mention this in each case, as it will explain some slight discrepancies that occur, between the Catalogues and the Reports to the Regents. The residences of students for the last fifteen years are taken either from the printed Catalogues or the manuscript Reports to the Regents.

The number of graduates for 1839 is not added, as there is still to be a semi-annual commencement in October 1839. The number graduated in April 1839 was 19.

On reviewing the tables, the total number of graduates from 1811 to 1838 inclusive is 799, of which 465 were from this state, and the remainder, 334, from other states and countries.

Of the students from 1824–5 to 1838–9 inclusive (fifteen years) the total is 2054. Of these 1529 were from this state, and the remainder, 525, from other states and countries, being an average of exactly 35 annually.

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College of Physicians and Surgeons, New-York. (***Residence of Graduates.***)

States.	1811	1812	1813	1814	1815	1816	1817	1818	1819	1820	1821	1822	1823	1824	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	1837	1838	Total.
New-York,	6	8	4	6	8	16	15	13	17	12	7	12	22	24	25	25	10	9	18	19	26	26	31	19	24	22	18	23	465
New-Jersey,	1	1	..	2	1	2	2	2	9	1	3	3	5	5	5	1	1	2	1	1	3	1	2	1	1	4	..	..	60
South-Carolina,	1	..	..	..	1	3	10	5	13	5	10	4	5	5	5	1	..	..	1	..	..	..	..	..	..	..	..	..	69
North-Carolina,	..	1	..	1	..	2	2	2	3	4	1	4	2	3	2	1	..	..	..	..	..	..	..	..	..	..	1	1	30
West-Indies,	..	1	..	..	..	..	1	..	1	..	..	..	1	..	1	1	..	..	..	..	..	..	..	2	1	..	..	..	9
Connecticut,	..	..	1	1	..	2	3	..	2	1	..	4	..	..	1	1	..	1	1	2	..	..	1	..	1	..	1	1	24
District of Columbia,	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2	..	..	..	..	..	..	4
Pennsylvania,	..	..	..	..	1	1	2	..	5	1	..	..	1	1	1	1	..	1	1	..	..	..	2	2	1	1	1	..	23
Tennessee,	..	..	..	..	..	..	1	1	3	1	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9
Massachusetts,	..	..	..	..	..	..	2	2	2	..	1	..	..	1	..	1	1	1	..	..	1	..	..	..	..	1	..	..	13
Virginia,	..	..	..	..	..	..	1	2	8	4	4	..	1	2	1	..	..	..	..	1	..	..	..	..	..	..	..	..	24
Europe,	..	..	..	..	..	..	1	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	5
Vermont,	..	..	..	..	..	..	..	1	..	.	..	..	1	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	5
Ohio,	..	..	..	..	..	..	..	2	..	..	..	..	..	1	..	..	..	..	.	..	..	..	..	..	..	..	..	..	3
Kentucky,	..	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Georgia,	..	..	..	..	..	..	..	1	2	5	2	1	5	..	3	1	..	..	..	..	..	..	..	..	..	1	1	..	22
Canada,	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	1	..	..	..	6
Rhode-Island,	..	..	..	..	..	..	..	..	2	..	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Delaware,	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Alabama,	..	..	..	..	..	..	..	..	2	1	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	5

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Louisiana								1					1																3
Nova-Scotia,										1	1	1														1			4
Maine,											1		1																3
Mississippi,												1																	1
New-Hampshire,																													1
India,																													1
New-Brunswick,																													1
	8	11	5	11	11	26	40	35	73	36	31	29	47	45	50	34	12	15	23	28	33	29	38	25	30	30	23	26	799

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College of Physicians and Surgeons, New-York. (Residence of Students.)

Years.	New-York.	New-Jersey.	Georgia.	Virginia.	South-Carolina.	North-Carolina.	Connecticut.	Massachusetts.	Maine.	Europe and Asia.	Vermont.	West-Indies.	Pennsylvania.	Rhode-Island.	Canada.	Ohio.	Louisiana.	Alabama.	Kentucky.	Dist. Columbia.	New-Hampshire.	Nova-Scotia.	Michigan.	New-Brunswick.	Maryland.	South-America.	Mississippi.	Unknown.	Total.
1824–25	123	18	6	1	8	6	8	1	1	1	2	3	4	1	1	4	1	2	1	1	..	..	..	..	..	..	..	1	196
1825–26	112	14	3	..	5	6	3	2	1	..	..	1	2	2	..	2	..	1	..	2	1	1	..	..	..	..	..	..	158
1826–27	64	10	..	1	2	1	1	3	1	..	1	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	1	..	88
1827–28	80	6	..	2	1	..	8	..	2	..	2	1	5	..	1	..	..	..	..	..	2	..	..	1	..	..	1	..	112
1828–29	92	4	..	8	1	1	5	1	..	2	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	113
1829–30	94	5	..	3	..	1	3	1	..	1	..	..	4	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	113
1830–31	134	15	..	..	..	1	5	5	..	2	..	..	..	..	2	..	..	..	..	..	1	1	..	..	..	..	..	..	167
1831–32	135	17	2	..	3	2	5	7	..	1	..	2	3	..	5	..	..	..	..	..	..	1	..	2	..	..	..	1	186
1832–33	137	20	1	1	2	1	5	..	..	..	..	5	6	1	4	..	..	..	..	..	1	1	..	4	..	..	..	..	189
1833–34	111	19	..	..	1	1	2	3	..	1	..	6	4	..	4	..	1	..	..	..	2	1	..	..	1	..	..	3	159
1834–35	107	9	..	..	1	..	3	2	..	1	..	2	..	..	2	1	..	..	..	..	..	2	..	..	..	..	..	..	132
1835–36	88	11	1	..	2	..	5	1	..	2	1	1	4	..	2	2	..	..	..	..	..	4	..	..	..	..	..	..	124
1836–37	86	10	1	1	..	2	1	..	1	..	..	..	1	..	1	..	..	..	..	..	..	1	..	1	..	..	..	..	106
1837–38	93	10	..	1	..	2	1	2	..	1	1	..	..	..	1	2	..	..	..	..	..	1	..	..	..	..	..	..	115
1838–39	73	11	1	2	..	..	1	2	..	2	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	96
Total, ...	1529	179	17	15	26	24	56	30	6	13	10	23	38	4	24	12	2	4	1	8	8	13	1	7	1	1	2	5	2054

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10. JEFFERSON MEDICAL COLLEGE, (PHILAD'LA.)

According to Mr. Hazard, the first class was graduated in 1826.

Number of Graduates.

Year.	No.	Authority.
1826	20	Catalogue.
1827	34	do
1828	25	do
1829	25	do
1830	35	do
1831	31	Professor Green.
1832	22	do
1833	17	Professor Dunglison.
1834	55	do
1835	58	do
1836	131	Circular of 1836–37.
1837	122	Dunglison's Med. Intelligencer, i. 13.
1838	103	do i. 439.
1839	86	do ii. 388.
	764	

Number of Students.

Year.	No.	Authority.
1825–26	110	Professor Green.
1826–27	109	do
1827–28	102	do
1828–29	110	Catalogue.
1829–30	96	do
1830–31	111	do
1831–32	100	Professor Green.
1832–33	96	Circular for 1836–37.
1833–34	172	do
1834–35	233	do
1835–36	364	do
1836–37	317	Catalogue.
1837–38	247	do
1838–39	230	Professor Green.
	2397	

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The following table exhibits the residence of the graduates for all the years except 1831 and 1832.

Jefferson Medical College. Residence of Graduates.

Year.	Pennsylvania.	New-York.	New-Jersey.	Connecticut.	Kentucky.	Massachusetts.	Vermont.	South-Carolina.	Europe.	Delaware.	Virginia.	Rhode-Island.	Ohio.	Maine.	Mississippi.	West-Indies.	Maryland.	North-Carolina.	New-Hampshire	Canada.	Georgia.	Nova-Scotia.	Missouri.	Dist. Columbia.	Alabama.	Tennessee.	Louisiana.	Total.
1826	11	1	2	1	1	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	20
1827	20	2	2	2	..	1	1	..	..	2	1	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	34
1828	14	..	3	2	..	3	..	..	..	..	2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	25
1829	14	1	1	1	..	2	..	..	..	..	..	..	..	..	..	..	2	1	1	2	..	..	..	..	..	..	..	25
1830	19	1	6	3	1	..	..	..	..	3	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	35
1833	7	2	..	..	..	..	..	..	..	1	2	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	17
1834	19	9	1	..	..	1	..	..	2	2	12	2	1	..	..	..	2	2	..	..	3	1	..	..	..	..	..	55
1835	16	9	3	1	1	3	..	4	2	2	8	1	1	..	..	..	1	1	..	..	3	..	..	1	..	1	..	58
1836	37	9	10	1	3	4	..	4	..	2	20	1	4	..	.	..	2	6	3	..	10	..	1	3	1	9	1	131
1837	24	10	6	..	4	5	..	1	1	3	26	1	10	1	4	..	6	1	1	3	4	..	..	3	1	5	..	122
1838	40	7	5	..	3	2	..	2	1	.	18	..	1	..	..	..	8	3	4	1	2	1	..	3	2	..	..	106
1839	25	4	6	1	..	1	1	2	4	3	13	..	5	..	2	..	10	1	..	2	2	1	..	1	..	1	1	86
	246	55	45	12	13	22	4	14	13	16	102	7	23	2	7	2	35	15	9	8	24	3	1	10	5	16	2	711

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Jefferson Medical College. Residence of Students for Five Years.

Year.	Pennsylvania.	Virginia.	Georgia.	Ohio.	Maryland.	Delaware.	West-Indies.	North-Carolina.	New-Jersey.	New-York.	Massachusetts.	Connecticut.	Rhode-Island.	Canada.	District Columbia.	New-Hampshire.	Missouri.	Kentucky.	Louisiana.	Tennessee.	South-Carolina.	Nova-Scotia.	Indiana.	Vermont.	Alabama.	Mississippi.	Maine.	Florida.	S. Amer. & Europe	Arkansas.	Total.
1833–34	81	31	4	5	7	4	1	4	7	16	2	3	1	1	..	..	..	..	..	1	1	1	..	..	..	..	..	..	2	..	172
1834–35	101	32	10	4	6	3	..	10	17	14	6	2	3	2	2	..	..	5	..	2	6	..	..	1	2	..	..	1	4	..	233
1835–36	117	48	13	15	19	7	1	10	22	28	10	1	2	6	10	4	1	8	2	18	7	..	4	1	5	2	..	..	3	..	364
1836–37	101	49	10	15	20	6	..	8	19	21	10	..	2	5	5	2	..	6	1	12	4	2	1	..	7	5	3	..	3	..	317
1837–38	92	35	7	6	17	4	..	8	14	13	4	..	.	3	4	5	1	5	1	4	2	2	2	..	5	1	2	2	7	1	247
	492	195	44	45	69	24	2	40	79	92	32	6	8	17	21	11	2	24	4	37	20	5	7	2	19	8	5	3	19	1	1333

Annual average number from the State of New-York, 18.

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11. BERKSHIRE MEDICAL INSTITUTION, AT PITTSFIELD, MASS.

This school was incorporated in 1823.

Number of Students.			*Number of Graduates.*			
Years.	No. of Students.	Authority.	Years.	No. of Graduates.	Honorary Graduates.	Authority.
1823	84	Catalogue.	1823	7	4	
1824	94	do	1824	23	4	
1825	112	do	1825	21	5	
1826	104	do	1826	26	5	
1827	106	do	1827	25	6	
1828	100	do	1828	28	1	
1829	108	do	1829	33	2	
1830	84	do	1830	22	2	
1831	91	do	1831	24	5	
1832	103	do	1832	22	4	
1833	104	do	1833	40	4	
1834	101	do	1834	29	2	
1835	100	do	1835	40	2	
1836	117	do	1836	45	4	
1837	73	do	1837	29	6	Dunglison, i. 359
1838	85	do	1838	32	3	Catalogue 1839.
	1566			446	59	

NOTES.

The lectures are delivered in the autumn of each year.

1829. Twenty-four students in chemistry are included in the 108.

1830. There are but 84 names on the Catalogue, although 85 are claimed.

1831. I cannot make more than 91 names, although the Catalogue claims 93.

1834. The numbers are wrong on the Catalogue, and should be Seniors 48, Juniors 44, Graduates 9; instead of Seniors 45 and Juniors 42.

The number of Graduates from 1823 to 1836 inclusive, is taken from the Catalogue of Graduates, published November, 1837.

I am indebted to Drs. Armsby, Wing and Childs, for Catalogues.

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Berkshire Medical Institution. (Residence of Students.)

States.	1823	1824	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	1837	1838	To-tal.
Massachusetts,	52	52	56	54	43	42	27	30	28	33	37	32	34	40	27	35	622
New-York,	18	23	31	34	27	13	35	37	30	38	41	40	38	39	22	27	493
Connecticut,	8	8	17	7	18	18	7	7	11	11	8	10	9	18	7	5	169
Maine,	2	1	1	3	1	....	....	....	....	1	....	1	2	2	2	3	20
Vermont,	4	2	4	2	4	8	7	4	12	9	9	2	3	6	5	3	84
New Hampshire,	..	2	1	3	4	13	4	2	4	3	3	3	5	5	1	2	55
Ohio,	..	2	1	1	1	....	....	..	1	2	....	2	....	....	2	..	12
New-Jersey,	..	1	....	....	1	1	....	..	..	3	4	3	4	1	1	2	21
Europe,	..	1	....	....	....	....	....	..	..	....	....	....	....	....	....	..	1
Georgia,	..	1	....	....	1	....	....	1	1	....	....	....	....	....	....	..	4
Alabama,	..	1	....	....	....	....	....	..	1	1	....	1	....	....	....	..	4
South-Carolina,	..	..	1	....	....	....	....	..	..	....	....	....	....	....	....	..	1
Canada,	..	..	....	....	2	1	2	3	..	....	....	....	1	....	2	4	15
Rhode-Island,	..	..	....	....	1	2	1	..	1	....	....	2	1	3	3	3	17
Pennsylvania,	..	..	....	....	1	1	1	..	1	2	2	2	....	2	..	..	12
Illinois,	..	..	....	....	1	1	....	..	..	....	....	....	1	....	..	..	3
Maryland,	..	..	....	....	1	....	....	..	..	....	....	....	....	....	..	..	1
North Carolina,	..	..	....	....	....	....	....	..	1	....	....	....	1	....	..	..	2
Louisiana,	..	..	....	....	....	....	....	..	..	....	....	1	1	....	1	..	3
West-Indies,	..	..	....	....	....	....	....	..	..	....	....	2	....	....	..	..	2
Michigan,	..	..	....	....	....	....	....	..	..	....	....	....	....	....	..	1	1
Unknown,	..	..	....	....	....	....	24	..	..	....	....	....	....	....	..	..	24
	84	94	112	104	106	100	106	84	91	103	104	101	100	117	73	85	1566

Annual average of Students from the State of New-York, 31.

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12. MEDICAL DEPARTMENT OF HAMPDEN SYDNEY COLLEGE, RICHMOND, (Va.)

[Organized in 1838.]

	No. of Students.	*Graduates.*
1838–39	48	14

Dunglison's Medical Intelligencer, ii. 132; iii. 159.

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13. LOUISVILLE MEDICAL INSTITUTE.

[Organized at Louisville, (Kentucky) in 1837.]

Number of Students.

1837–38	80	Louisville Med. Journal, i. 250.
1838–39	120	Dunglison's Med. Intel. ii. 372.
	200	

Residence of Students in 1838–39.

Kentucky,	54	Georgia,	2
Tennessee,	32	New-York	1
Mississippi,	9	Missouri,	1
Alabama,	7	Massachusetts,	1
Indiana,	6	Louisiana,	1
Illinois,	4		
North-Carolina,	2		120

Number of Graduates.

1838	24	Louisville Med. Journal, i. 249.
1839	29	Philadelphia Med. Examiner, ii. 601.
	53	

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14. WOODSTOCK MEDICAL SCHOOL, (VERMONT.)

This institution was, (according to the Catalogue of 1838) founded in 1830. Degrees were conferred by the authority of Middlebury College. In October 1835, the Legislature of Vermont gave it an independent charter, under the title of the *Vermont Medical College.*

The lectures commence annually on the second Thursday in March.

Number of Graduates, (excluding honorary.)			*Number of Students.*		
1830	11	Catalogue 1838.	March 1835	60	Cat.
1831	16	do	March 1836	77	do
1832	28	do	March 1837	61	do
1833	19	do	March 1838	65	do
1834	17	do	March 1839	80	do
1835	16	do			
1836	11	do		343	
1837	16	do			
1838	18	Catalogue of 1839.			
1839	14	Boston Med. and Surg. Journal.			
	166				

Residence of Students.

States.	1835.	1836.	1837.	1838.	1839.	Total.
Vermont, ...	30	36	33	27	42	168
New-Hampshire, ...	9	17	10	7	14	57
Massachusetts, ...	10	12	8	6	7	43
New-York, ...	6	8	7	16	10	47
New-Jersey, ...	1	.....	1	.....	.....	2
Maine, ...	1	.....	.....	.....	1	2
Louisiana, ...	1	.....	.....	.....	.....	1
Canada, ...	2	1	.....	6	5	14
Connecticut, ...	.....	1	1	1	1	4
Illinois, ...	.....	1	1	.....	.....	2
North-Carolina, ...	.....	1	.....	.....	.....	1
Ohio, ...	.....	.....	.....	1	.....	1
Michigan, ...	.....	.....	.....	1	.....	1
	60	77	61	65	80	313

I am indebted to Drs. Robert Watts jun. and Armsby for Catalogues.

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15. YALE COLLEGE.

"The Medical Institution of Yale College was organized in 1810, and the first course of lectures was delivered in the winter of 1813–14."—*Circular of* 1839–40.

Graduates.		*Students.*		*Authority.*
1814	3	1813–14	37	Professor Tully.
1815	5	1814–15	57	do
1816	18	1815–16	64	do
1817	6	1816–17	no record.	do
1818	10	1817–18	do	do
1819	13	1818–19	55	do
1820	7	1819–20	62	do
1821	13	1820–21	62	do
1822	16	1821–22	76	Catalogue.
1823	28	1822–23	92	Professor Tully.
1824	15	1823–24	71	do
1825	25	1824–25	81	do
1826	29	1825–26	75	do
1827	19	1826–27	81	do
1828	28	1827–28	91	Catalogue.
1829	36	1828–29	68	do
1830	17	1829–30	61	do
1831	22	1830–31	69	do
1832	15	1831–32	48	do
1833	13	1832–33	51	Professor Tully.
1834	14	1833–34	66	Catalogue.
1835	19	1834–35	64	do
1836	18	1835–36	60	do
1837	17	1836–37	50	do
1838	17	1837–38	48	do
1839	17	1838–39	46	do
	440		1535	

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The number of graduates from 1814 to 1833 inclusive, is taken from the "Catalogue of the Officers, Graduates, and Students of the Medical Institution of Yale College 1833–34." For the remaining years, I am indebted to Professor Tully.

I am indeed under especial obligations to Professor Tully, for furnishing me as above with the number and residences of the students from the opening of the Institution down to 1827, and also, for several years subsequent. For most of the years not credited to him, I have received catalogues from Horace B. Webster Esq. of this city.

It is stated in the Circular of the Institution for 1839–40, that the whole number of graduates since the first course of lectures in 1813–14 is - - - - - 439
And that of licentiates, - - - - - 293
My total of graduates, it will be seen is 440

The following remarks of Dr. Tully in his communication to me deserve a place here. "The catalogues of Yale College are always published very early in the college year, and a considerable number of students, always arrive after their publication. There has never been a year, since I have been connected with the institution, that the whole of the medical class has been in the Catalogue; but no record is kept by which the names and residence of the tardy ones, can now be ascertained."

As an illustration of this, I find it stated in the Boston Medical and Surgical Journal, vol. 20, p. 61, that the class of 1838–39, amounting to 46 on the Catalogue, had increased to 51,

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Yale College. Residence of Students. (Twenty-four Years.)

States.	1813–14	1814–15	1815–16	1818–19	1819–20	1820–21	1821–22	1822–23	1823–24	1824–25	1825–26	1826–27	1827–28	1828–29	1829–30	1830–31	1831–32	1832–33	1833–34	1834–35	1835–36	1836–37	1837–38	1838–39	Total.
Connecticut,	17	38	36	39	49	42	52	66	53	57	45	51	54	42	44	50	32	38	44	41	41	34	35	32	1032
Vermont,	9	6	1	4	2	2	2	..	..	3	2	1	3	..	..	..	..	..	2	..	..	1	..	..	37
New-Hampshire,	6	4	4	..	..	2	2	..	1	..	1	2	2	1	1	1	..	..	2	1	..	1	..	..	31
Massachusetts,	6	4	11	9	5	9	8	4	7	5	4	6	5	2	3	1	2	1	2	3	4	1	3	4	109
New-York,	..	3	9	2	5	5	6	11	4	10	14	7	12	10	6	6	6	6	4	10	5	7	5	3	156
Virginia,	..	1	1	..	..	..	1	1	..	1	1	..	2	1	1	..	..	..	..	.	..	..	..	..	10
New-Jersey,	..	1	..	..	..	..	..	..	..	..	1	3	4	4	1	1	3	..	1	2	2	1	..	..	24
Maine,	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	4
Ohio,	..	..	1	..	..	..	..	3	3	3	1	2	2	1	1	..	1	1	1	..	..	1	..	1	22
Rhode-Island	..	..	..	1	..	..	..	2	..	..	2	2	3	2	..	1	..	3	..	1	1	1	..	..	19
Maryland,	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	1	..	..	..	..	1	..	..	..	4
Louisiana,	..	..	..	..	..	1	1	..	1	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	6
Georgia,	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	3
Pennsylvania,	..	..	..	..	..	..	1	1	1	1	..	2	..	4	2	2	2	..	2	3	..	..	1	..	22
North-Carolina	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	1	..	1	1	..	..	5
South-Carolina,	..	..	..	..	..	..	1	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	4
New-Brunswick,	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Canada,	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2
West-Indies,	..	..	..	..	..	..	..	..	..	..	1	3	2	..	..	3	1	1	2	..	..	..	1	1	15

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Nova Scotia,																															1
Europe,																															5
Indiana,																															5
Alabama,																															1
South-America																															9
Illinois,																															2
Delaware,																															1
Tennessee,																															1
Mississippi,																															2
United States Navy,																															1
Unknown																															1
			37	57	64	55	62	62	76	92	71	81	75	81	91	68	61	69	48	51	6	64	60	50	46	46	1585

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16. COLUMBIAN COLLEGE, DISTRICT OF COLUMBIA. MEDICAL DEPARTMENT.

This school was opened in 1825, and the first class graduated in 1826.

Number of Graduates.

1826	6	1832	8
1827	7	1833	8
1828	12	1834	9
1829	9		—
1830	12		81
1831	10		

The lectures have been suspended since 1834, but the College is again opened this year, (1839–40) under flattering auspices.

Professor Sewall, to whom I am indebted for the above list, informs me that the Dean's book containing the list of students has been lost or mislaid. "The number of students who attended the lectures, generally ranged from 30 to 50." In my annual tables I will accordingly put the number at 40.

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17. UNIVERSITY OF VIRGINIA, CHARLOTTESVILLE.

The medical department of this institution was, according to Professor Dunglison, organised in 1825. My information concerning it is very limited. The following are some gleanings.

Whole number of students from 1825 to 1836–37 inclusive, in Medicine, - - - - - - 415

Anatomy and Surgery, - - - 390

Chemistry and Materia Medica, - 746

Medical Jurisprudence, - - - 64

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1836–37. No. Students in the School of Medicine, 55
Anatomy and Surgery, - - 61
Chemistry and Materia Medica, 130
Boston Med. & Surg. Jour. xvi. 322.

Number of Students.

Year.	Number.	Authority.
1833–34	42	Catalogue.
1834–35	..	
1835–36	63	Dunglison's Med. Student, p. 302.
1836–37	61	Bost. Med. & Surg. Jour. xvi. 322.
1837–38	..	
1838–39	60	Dunglison's Med. Intel. iii. 159.

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18. MEDICAL COLLEGE OF GEORGIA.

This institution, *located* at Augusta in the State of Georgia, was incorporated in the winter of 1830. The first course of lectures was delivered in the winter of 1832–33. For the following lists, I am indebted to the kindness of Professor Paul F. Eve, Dean of the Faculty of the College.

Students.		*Graduates.*	
1832–33	27	1833	4
1833–34	30	1834	15
1834–35	37	1835	15
1835–36	31	1836	8
1836–37	44	1837	15
1837–38	41	1838	13
1838–39	60	1839	12
	270		82

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Residence of Students.

	1832 –33	1833 –34	1834 –35	1835 –36	1836 –37	183- –38	Total.
Georgia	22	21	30	24	39	38	174
South-Carolina,	2	7	2	7	3	3	24
Kentucky,	1	....	....	....	....	....	1
Alabama,	1	2	4	....	1	....	8
New-York,	1	....	....	....	....	....	1
Mississippi,	....	....	1	....	....	....	1
North-Carolina,	....	....	....	....	1	....	1
	27	30	37	31	44	41	210

Residence of Graduates.

	1832 –33	1833 –34	1834 –35	1835 –36	1836 –37	1837 –38	Total.
Georgia,	4	11	10	8	14	12	59
South-Carolina,	....	4	2	....	1	1	8
Alabama,	....	....	2	....	....	....	2
Mississippi,	....	....	1	....	....	....	1
	4	15	15	8	15	13	70

19. HARVARD UNIVERSITY.

The Medical School of this institution was opened in 1782, and graduates in medicine have proceeded from it since that time. I have endeavoured with the triennial catalogues before me, to prepare a list of the graduates in *each year*, but have not been able to complete it satisfactorily, and I therefore omit it.* I could hardly ask the favor

*The difficulty is; that such as have graduated in arts and subsequently as M. D., are put down for both in the first year, whereas those that merely proceed as M. D. are entered for their proper years. The same difficulty occurred in the Yale College Catalogue until I received the separate catalogue of its medical school.

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of any one going through the labor of examining the record of nearly sixty years for this purpose. I have however been favored by Professor Channing with the following list of students during the last twenty years.

1818–19	58	1829–30	92
1819–20	not known.	1830–31	95
1820–21	53	1831–32	80
1821–22	74	1832–33	83
1822–23	78	1833–34	82
1823–24	100	1834–35	104
1824–25	128	1835–36	118
1825–26	118	1836–37	87
1826–27	110	1837–38	82
1827–28	84	1838–39	85
1828–29	86		

I subjoin the residence of students for three years, as stated in the annual catalogues.

States.	1835–36	1836–37	1837–38	Total.
Massachusetts,	88	72	59	219
Maine,	6	2	3	11
New-Hampshire,	10	6	4	20
Vermont,	1	.....	.....	1
Rhode-Island,	3	1	5	9
New-York,	1	1	.....	2
Nova-Scotia,	1	.....	.....	1
North-Carolina,	1	.....	.....	1
Louisiana,	1	.....	.....	1
West-Indies,	2	2	2	6
South-America,	1	.....	.....	1
Unknown,	3	.....	.....	3
New-Jersey,	.....	1	.....	1
Illinois,	.....	1	.....	1
Ohio,	.....	1	.....	1
Canada,	.....	.....	6	6
United States Navy,	.....	.....	1	1
South-Carolina,	.....	.....	1	1
Connecticut	.....	.....	1	1
	118	87	82	287

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20. BOWDOIN COLLEGE AND MEDICAL SCHOOL OF MAINE.

The Medical School of Bowdoin College (at Brunswick, state of Maine,) under the above name, was incorporated June 7, 1820.—*Catalogues.*

The following lists have been communicated to me by Professor Cleaveland, and I am also indebted to him for catalogues of various years.

Years.	Graduates.	Students.	Years.	Graduates.	Students.
1821	2	21	1832	25	90
1822	16	49	1833	26	103
1823	23	52	1834	24	80
1824	21	56	1835	18	86
1825	21	57	1836	27	100
1826	22	56	1837	33	78
1827	24	66	1838	23	77
1828	27	92	1839	19	71
1829	45	99			
1830	37	99	Total,	464	1423
1831	31	91			

The lectures commence in February of each year.

The following is a table of the residences of students from 1827 to 1839 inclusive, except 1830 and 1835, of which I have not been able to procure catalogues.

States.	1827	1828	1829	1831	1832	1833	1834	1836	1837	1838	1839	Total
Maine,	44	57	55	57	61	62	62	81	64	62	50	656
New-Hampshire,	12	19	21	14	12	12	5	5	3	8	11	122
Massachusetts,	9	7	10	12	9	18	5	7	6	3	4	90
Vermont,	1	1	3	4	1	4	..	1	1	1	..	17
Connecticut,	..	5	7	1	2	2	..	..	..	1	1	19
New-York,	..	2	3	2	..	..	2	3	..	1	2	15
Canada,	..	1	..	..	1	..	2	..	1	1	..	6
West-Indies,	..	..	..	..	1	..	..	..	..	..	..	1
Rhode-Island,	..	..	..	..	3	3	1	..	..	..	..	7
Nova-Scotia,	..	..	..	1	..	1	1	1	2	..	..	6
New-Brunswick,	..	..	..	..	..	..	1	2	..	..	1	4
Mississippi,	..	..	..	..	..	..	1	..	..	..	..	1
Georgia,	..	..	..	..	..	..	..	..	1	..	..	1
Pennsylvania,	..	..	..	..	..	..	..	..	..	..	1	1
South-Carolina,	..	..	..	..	..	..	..	..	..	..	1	1
	66	92	99	91	90	103	80	100	78	77	71	947

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21. DARTMOUTH COLLEGE.

The Medical School of this College was organized in 1797.

The following list of graduates, with the exception of 1838, is taken from the "Catalogus Collegii Darthmauthensis, 1837."

Graduates.

1798	2 M. B.	Brought up,	144
1799	2 M. B.	1819	13
1800	4 M. B.	1820	15
1801	3 M. B.	1821	14
1802	3 1 M. D. 2 M. B.	1822	12
1803	8 M. B.	1823	16
1804	2 M. B.	1824	28
1805	4 M. B.	1825	22
1806	5 M. B.	1826	26
1807	4 M. B.	1827	31
1808	1 M. B.	1828	16
1809	5 M. B.	1829	21
1810	9 M. B.	1830	18
1811	8 M. B.	1831	20
1812	10 2 M. B. 8 M. D.	1832	31
1813	18 M. D.	1833	21
1814	9 M. D.	1834	27
1815	15 M. D.	1835	28
1816	9 M. D.	1836	13
1817	11 M. D.	1837	19
1818	12 M. D.	1838	31
	144	Total,	566

After 1813 the degree of M. D. was alone conferred.

Students.

For most of the following I am indebted to the kindness of Dr. Worcester of Cincinnati, who has copied them from a series of Catalogues in the possession of Professor Mussey, late of Dartmouth College.

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1820	66	1830	98
1821	65	1831	101
1822	85	1832	97
1823	73	1833	100
1824	78	1834	106
1825	103	1835	80
1826	104	1836	86
1827	99	1837	92
1828	90	1838	78
1829	103		
			1704

The lectures commence annually in the autumn, and are concluded before the end of the year.

1835. The printed Catalogue claims 81, but I cannot make more than 80 names.

I subjoin the residences of students during the last seven years.

States.	1832	1833	1834	1835	1836	1837	1838	Total.
New-Hampshire,	43	51	47	36	27	35	34	273
Vermont,	26	20	24	15	24	21	19	149
Massachusetts,	12	16	18	13	21	9	5	94
Maine,	13	7	4	15	11	16	8	74
New-York,	1	2	8	....	1	1	6	19
Canada,	1	2	2	....	....	2	2	9
Nova-Scotia,	1	....	....	....	....	....	1	2
Rhode-Island,	....	1	....	....	....	....	....	1
Europe, &c.	....	....	1	....	....	1	1	3
Virginia,	....	....	1	....	....	....	....	1
South America,	....	....	....	1	1	1	....	3
Pennsylvania	....	....	....	....	1	1	1	3
Michigan	....	....	....	....	....	1	1	2
Connecticut,	....	....	....	....	....	2	....	2
Ohio,	....	....	....	....	....	1	....	1
Georgia,	....	....	....	....	....	1	....	1
Unknown,	....	1	1	....	....	....	....	2
Total,	97	100	106	80	86	92	78	639

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22. MEDICAL COLLEGE OF OHIO.

"The Medical College of Ohio was incorporated by act. of the General Assembly, passed January 19, 1819."—*Report to the Senate of Ohio, forming the Appendix to the Western Medical Gazette, vol. 2, No. 1.*

I have found considerable difficulty in preparing a table of the students of this institution, owing to the diversity of statements concerning it. In the Western Journal of the Medical and Physical Sciences, viii. 313, a list of students is given from 1820 to 1833, the number of which for each year is materially less than was announced in cotemporary journals. The difference is however subsequently explained by a remark (vol. ix. p. 179) that from 1826 to 1833, at least twelve students annually were beneficiaries, and should not be added in. Dr. Worcester of Cincinnati has furnished me a list of matriculated students from 1822–23 to 1838–39, (taken from the College books,) on which I shall principally rely.

Years.	Students.	Authority.
1820_21	25	Western Med. & Phys. Journal, viii. 313.
1821_22	30	do do do
1822_23	18	Dr. Worcester.
1823_24	20	do
1824–25	22	do
1825–26	63	do Am. Med. Rec., x. 216, 224.
1826–27	80	do Report to the Senate.
1827–28	101	do do
1828–29	113	West. M. & P. J. ii. 606; Am. Jour. Med.
1829–30	123	Scienc's, vi. 556.
1830–31	124	Dr. Worcester.
1831–32	150	West. Med. & Phys. Jour. v. 566.
1832–33	82	West. Med. Gazette, i. 31.
1833–34	114	do do i. 317; Dr. Worcester.
1834–35	91	do do ii. 528.
1835–36	132	Dr. Worcester.
1836–37	181	do
1837–38	83	do
1838–39	101	do
	1653	

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NOTES.

1824–25. This number (22) corresponds to that given by Prof. Sewall in his Introductory Lecture, yet in the Report to the Senate already referred to, the class is said to have been 15, and the same number is mentioned in an official advertisement in the American Journal of Medical Sciences, vol. x. p. 556.

1825–26. The Report to the Senate says 48.

1827–28. In an official advertisement of the College, (American Journal Med. Sciences, vol. vi. 556) the number is said to have been 103, and yet by referring to the American Med. Recorder, vol. xiv. 207, a Catalogue of the names of the students of that year will be found, amounting to 112.

1828–29. The number stated by Dr. Worcester is 101.

1829–30. Dr. Drake (as already referred to) and Dr. Worcester mention 107.

1830–31. Dr. Drake and Dr. Worcester agree in the number 124, but the class is said to have amounted to 140, according to the American Journal Medical Sciences, vol. 8, p. 269.

1831–32. The names and residences of the 150 are given in full in the journal referred to, yet in an official advertisement of the College (American Journal Medical Sciences, vol. 10, p. 556,) the number claimed is only 131. This also corresponds with the statement of Dr. Worcester.

1832–33. Eighty-five according to Dr. Worcester, but there is a catalogue with the residences given in the journal quoted, amounting only to 82.

1833–34. A catalogue for this year with the residences is given in the journal quoted.

Graduates.

The list forwarded to me by Dr. Worcester corresponds in every instance with the number when given in the various journals. It does not however go farther back than 1826, and I am not aware whether any were graduated previous to that period.

1826	16	1833	19
1827	16	1834	20
1828	11	1835	26
1829	21	1836	25
1830	26	1837	48
1831	26	1838	15
1832	36	1839	26
			331

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I subjoin the residence of graduates for a few years.

States.	1827	1828	1829	1832	1833	1834	1835
Ohio,	10	7	5	10	9	13	11
Kentucky,	4	....	8	9	2	2	5
Indiana,	1	1	2	2	....	1	1
Mississippi,	1	1	4	1	5	....	2
Virginia,	....	1	....	5	....	1	1
Europe,	....	1	....	....	....	....	....
Illinois,	....	....	1	....	....	....	2
South-Carolina,	....	....	1	2	....	....	....
Tennessee,	....	....	....	2	1	2	2
Louisiana,	....	....	....	2	....	....	1
New-York,	....	....	....	1	....	....	....
Pennsylvania,	....	....	....	1	....	....	....
Maryland,	....	....	....	1	....	....	1
Missouri,	....	....	....	....	1	....	....
Alabama,	....	....	....	....	1	....	....
Connecticut,	....	....	....	....	....	1	....
	16	11	21	36	19	20	26

1827 Western Medical and Physical Journal, i. 70.
1828 do do i. 718.
1829 do do ii. 654.
1832 do do v. 566.
1833 Western Medical Gazette, i. 112.
1834 do do i. 350.
1835 do do ii. 519.

23. MEDICAL COLLEGE OF THE STATE OF SOUTH-CAROLINA.

"In consequence of difficulties originating between the faculty of the Medical College of South-Carolina and the Medical Society of the State, the governing body, in the year 1832, the former resigned their professorships and obtained from the legislature, a charter under the above title. This was organized in 1833."—*Dunglison's Med. Student, p.* 304.

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Number of Students.

1833–34	103	Amer. Jour. Med. Sciences, xiv. 530.
1834-35	127	do do xvi. 260.
1835–36	129	Dunglison's Med. Student, p. 304.
1836–37	106	Amer. Jour. Med. Sciences, xx. 273.
1837–38	141	Dunglison's Med. Intell. ii. 15.
1838–39	151	do do ii. 256.
	757	

Number of Graduates.

1834	39	Amer. J. Med. Sciences, xiv. 530.
1835	38	Dunglison's Medical Student, 304.

Residence of Students for Two Years.

	1837–38	1838–39
South-Carolina,	102	126
Georgia,	16	9
Alabama,	10	5
North-Carolina,	6	6
Florida,	2	3
Mississippi,	1	
Tennessee,	1	
Virginia,	1	
Massachusetts,	1	
Maine,	1	
Louisiana,		1
West-Indies,		1
	141	151

Of the remaining medical institutions, my information is either extremely imperfect or scanty. And although I should be glad to delay publishing until I could obtain full returns, (promised indeed in some instances) yet the near approach of the annual meeting of the STATE MEDICAL SOCIETY renders it imperative on me to close this communication. I therefore can only subjoin the following:

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24. UNIVERSITY OF MARYLAND.

The Medical School was organized in 1807.

Number of Students.

1824–25	215	Dr. Sewall's Lecture.
1833–34	143	Amer. J. Med. Sciences, xiv. 272.
1834–35	143	do do xvi. 260.
1835–36	120	Dunglison's Med. Student, 297.

Number of Graduates.

1818	22	American Medical Recorder, i. 452.
1819	42	do do ii. 308.
1820	29	do do iii. 296.
1821	28	do do iv. 399.
1822	54	do do v. 391.
1823	63	do do vi. 394.
1824	58	do do vii. 661.
1825	76	do do viii. 646.
1826	74	do do x. 222.
1827	79	do do xii. 204.
1828	68	do do xiv. 249.
1829		
1830	53	Baltimore Monthly Journal, i. 183.
1831		
1832	61	Amer. Jour. Med. Sciences, x. 279.
1833	54	do do xii. 278.
1834	52	Balt. M. & S. Jour. ii. 254.
1835	50	North Amer. Archives, ii. 70.
1836	46	Dunglison's Med. Student, 297.

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25. MEDICAL COLLEGE OF SOUTH-CAROLINA.

[Organized in 1824.]

Students.

1824–25	50	Dr. Sewall's Lecture.
1830–31	131	Amer. J. Med. Sciences, viii. 269.

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1834–35	18	Dunglison's Med. Student, 301.
1837–38	29	Amer. J. Med. Sciences, xxii. 257.

Graduates.

1825	5	Amer. Med. Recorder, viii. 647.
1826	26	do x. 223.
1827		
1828	20	do xiv. 251.
1829	39	Amer. J. Med. Sciences, iv. 270.
1830	55	Western M. & P. Journal, iv. 160.

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26. WASHINGTON MEDICAL COLLEGE.

This institution was organized at Baltimore, (state of Maryland) in 1827, and the first course of lectures was delivered in 1827–28. (*Maryland Med. Recorder*, i. 158.) The degrees were conferred by Washington College, (Pennsylvania.) The institution obtained a charter from the state of Maryland in 1833–34.

Students.

1835–36.	20	Dunglison's Med. Student, 303.
1838–39	53	American Med. Intelligencer, iii. 191.

Graduates.

1828	12	Maryland Med. Recorder, i. 158.
1829	11	do do
1834	10	United States Med. & Surg. Journal, i. 349.

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27. MEDICAL COLLEGE OF LOUISIANA.

The first course of lectures in this College, established at New-Orleans, was delivered in the winter of 1834–35, but the charter was not obtained until 1835.—*Circular.*

Number of Students.

1835–36	22	Western Med. & Phys. Jour., ix. 610.
1837–38	25 (estimated)	do xi. 662.

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With the facts now presented to the Society, we are enabled to form a judgment on the contested point alluded to, in the introduction of this communication.

There have attended annually at different medical institutions, the following average number of students from the state of New-York.

At the University of Pennsylvania,	(average of	9	years)		13
" Willoughby University,	("	4	"	)	7
" Castleton Medical School,	("	21	"	)	34
" Jefferson Medical College,	("	5	"	)	18
" Berkshire Medical School,	("	16	"	)	31
" Woodstock Medical School,	("	5	"	)	9
" Yale College,	("	24	"	)	7
" Harvard, Dartmouth, Bowdoin,	estimated at				5
					124

On the other hand, there have attended annually from other states at the

College Phys. & Surg. New-York,	(average of	15	yrs.)		35
College Phys. & Surg. Fairfield,	("	18	"	)	21
					*56

For obvious reasons, I do not include the medical colleges of Geneva and Albany in the above statement.

The annual balance against the State of New-York was

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* Perhaps it may be said that the averages are spread over too large a number of years. I therefore take a single one, 1833–34, the year previous to the incorporation of the Geneva Medical School.

At Pennsylvania,..	16	There were from other states,	
Jefferson,.....	16	At New-York,..	48
Castleton, 1833,	59	Fairfield,....	27
Pittsfield, 1833,	41		75
Woodstock, (say)	9		
Yale,.....	4		
Dartmouth, ...	2	Balance against New-York,	72
	147		

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thus 68. I do not think it necessary, after this exhibit of figures, to comment on the assertions that for years have been made, that HUNDREDS of medical students have left the State of New-York, to pursue their education elsewhere.*

There is another point of interest to which my attention has also been directed, viz. the increase of medical students in the United States. We have fortunately some data, by which we can ascertain whether this is proportionate to the increase of population.

In a highly valuable "Lecture delivered at the opening of the Medical Department of the Columbian College in the District of Columbia, March 30, 1825, by Thomas Sewall, M. D., Professor of Anatomy and Physiology," there is given a table of the students attending the medical schools of the United States during the session of 1824–5. I copy this with a few alterations taken from the foregoing tables.

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* While much is said about medical students leaving the state, no notice is taken concerning those who pass by our *literary* institutions. It may hence be as well to give the following abstract taken from an elaborate paper in the American Quarterly Register for August 1839. (Vol. xii. p. 70.)

Literary Colleges in New-England.	No. of Students in 1838.	Students from the State of New-York.
Bowdoin,	113	2
Waterville,	73	0
Dartmouth,	301	8
Harvard,	217	11
Amherst,	189	24
Williams,	135	82
Brown,	183	7
Yale,	411	81
Washington,	81	23
Wesleyan,	152	48
Univ. Vermont,	102	15
Middlebury,	123	26
Norwich,	57	4
		331

Three hundred and thirty-one students leave New-York to attend the New-England colleges—to which must probably be added seventy more, going to the colleges of New-Jersey and Pennsylvania.

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	1834-5	My Tables.	
University of Pennsylvania,	480	487	+7
College of P. & S. New-York,	196		
Harvard College,	130	128	—2
Dartmouth College,	80	78	—2
University of Maryland,	215		
College of P. & S. Fairfield,	120		
Yale College,	82	81	—1
Medical College of Ohio,	22		
Vermont Academy,	124		
Transylvania University,	235	234	—1
Medical School of Maine,	60	57	—3
Brown University,	40		
University of Vermont,	42		
Berkshire Medical School,	94		
Medical School of S. Carolina,	50		
	1970		—2

The population of the United States was

in 1820	9,638,131	
in 1830	12,866,920	and probably will be
in 1840	16,000,000	

Now assuming the population in 1825, to have been eleven millions, and in 1838-9, fifteen millions, the number of medical students, if in the same proportion to the population as in 1825, should have been in the last named year, TWO THOUSAND SIX HUNDRED AND EIGHTY-FOUR. What the actual number has been will be tolerably shown by the following series of tables.

1829–30.

Medical Colleges.	Students.	Medical Colleges.	Students.
Pennsylvania, ...	421	Castleton, 1829, ...	101
Transylvania, ...	199	Bowdoin, 1830, ...	99
Jefferson, ...	96	Ohio, ...	123
New-York, ...	113	Columbian, ...	40
Fairfield, ...	160	Maryland, ...	
Dartmouth, 1829, ...	102	Virginia, ...	
Yale, ...	61	South-Carolina, ...	
Harvard, ...	92	Washington, ...	
Berkshire, 1829, ...	108		
			1716

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1830–31.

Pennsylvania, ...	410	Castleton, 1830, ...	83
Transylvania, ...	211	Bowdoin, 1831, ...	91
Jefferson	111	Ohio, ...	124
New-York, ...	167	Columbian, ...	40
Fairfield, ...	182	South-Carolina, ...	131
Dartmouth, 1830, ...	98	Virginia, ...	
Yale, ...	69	Maryland, ...	
Harvard, ...	95	Washington, ...	
Berkshire, 1830, ...	84		
			1896

1831–32.

Pennsylvania, ...	390	Castleton, 1831, ...	65
Transylvania, ...	213	Bowdoin, 1832, ...	90
Jefferson, ...	100	Ohio, ...	150
New-York, ...	186	Columbian, ...	40
Fairfield, ...	205	South-Carolina, ...	
Dartmouth, 1831, ...	101	Virginia, ...	
Yale, ...	48	Maryland, ...	
Harvard, ...	80	Washington, ...	
Berkshire, 1831, ...	91		
			1759

1832–33.

Pennsylvania, ...	368	Castleton, 1832, ...	74
Transylvania, ...	226	Bowdoin, 1833, ...	103
Jefferson, ...	96	Ohio, ...	82
New-York, ...	189	Columbian, ...	40
Fairfield, ...	190	South-Carolina, ...	
Dartmouth, 1832, ...	97	Maryland, ...	
Yale, ...	51	Virginia, ...	
Harvard, ...	83	Washington, ...	
Berkshire, 1832, ...	103	Georgia	27
			1729

1833–34.

Pennsylvania	431	Bowdoin, 1834, ...	80
Transylvania, ...	260	Ohio, ...	114
Jefferson, ...	172	Columbian, ...	40
New-York, ...	159	South-Carolina, ...	
Fairfield, ...	217	Washington, ...	
Dartmouth, 1833, ...	100	Virginia, ...	42
Yale, ...	66	Georgia, ...	30
Harvard, ...	82	State of S. Carolina, ..	103
Berkshire, 1833, ...	104	Maryland, ...	143
Castleton, 1833, ...	93		
			2236

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1834–35.

Pennsylvania,	392	Bowdoin, 1835,	86
Transylvania,	255	Ohio,	91
Jefferson,	233	Maryland,	143
New-York,	132	Virginia,	
Fairfield,	197	South-Carolina,	18
Dartmouth, 1834,	106	Washington,	
Yale,	64	Georgia,	37
Harvard,	104	State of S. Carolina,	127
Berkshire, 1834,	101	Woodstock, 1835,	60
Castleton, 1834,	111	Geneva,	42
			2299

1835–36.

Pennsylvania,	397	Maryland,	120
Transylvania,	260	Virginia,	63
Jefferson,	364	South-Carolina,	
New-York,	124	Washington,	20
Fairfield,	163	Georgia,	31
Dartmouth, 1835,	80	State of S. Carolina,	129
Yale,	60	Woodstock, 1836,	77
Harvard,	118	Geneva,	68
Berkshire, 1835,	100	Willoughby,	23
Castleton, 1835,	135	Louisiana,	22
Bowdoin, 1836,	100	Cincinnati,	66
Ohio,	132		2652

1836–37.

Pennsylvania,	401	Maryland,	
Transylvania,	242	Virginia,	61
Jefferson,	317	South-Carolina,	
New-York,	106	Washington,	
Fairfield,	164	Georgia,	44
Dartmouth, 1836,	86	State of S. Carolina,	106
Yale,	50	Woodstock, 1837,	61
Harvard,	87	Geneva,	60
Castleton, 1836,	96	Willoughby,	51
Berkshire, 1836,	117	Cincinnati,	85
Bowdoin, 1837,	78	Louisiana,	
Ohio,	181		2393

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1837–38.

Pennsylvania,	380	Virginia,	
Transylvania,	227	South-Carolina,	29
Jefferson,	247	Washington,	
New-York,	115	Georgia,	41
Fairfield,	142	State of S. Carolina,	141
Dartmouth, 1837,	92	Woodstock, 1838,	65
Yale,	48	Geneva,	67
Harvard,	82	Willoughby,	55
Castleton, 1837,	115	Cincinnati,	125
Berkshire, 1837,	73	Louisiana,	25
Bowdoin, 1838,	77	Louisville,	80
Ohio,	83		
			2309

1838–39.

Pennsylvania,	402	South-Carolina,	
Transylvania,	211	Washington,	53
Jefferson,	230	Georgia,	60
New-York,	96	State of S. Carolina,	151
Fairfield,	114	Woodstock, 1839,	80
Dartmouth, 1838,	78	Geneva,	76
Yale,	46	Willoughby,	40
Harvard,	85	Cincinnati,	112
Berkshire, 1838,	85	Louisville,	120
Bowdoin, 1839,	71	Albany,	68
Ohio,	101	Hampden Sidney,	48
Virginia,	60		
			2387

Any extended comments on these tables are of course unnecessary. But I cannot refrain from calling the attention of my readers to the great increase in 1835–6 and the subsequent diminution.

It may be well to add that I have omitted the number of students attending at Castleton during the spring terms, and have in each instance put down those attending in autumn only.

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APPENDIX.

No. I.

I subjoin as a somewhat necessary appendix to this communication, the following list of Medical Schools in the United States, with the time of their foundation or incorporation.

1. University of Pennsylvania, Philadelphia, 1765.
2. Medical Faculty of Columbia College, New-York, 1767. *Discontinued.*
3. Medical School of Harvard University, Boston, 1782.
4. Medical School of Dartmouth College, New-Hampshire, 1797.
5. College of Physicians and Surgeons, New-York, 1807.
6. University of Maryland, Medical School, 1807.
7. Medical Institution of Yale College, 1810.
8. College of Physicians and Surgeons, Fairfield, New-York, 1812.
9. Vermont Academy of Medicine at Castleton, 1818.
10. Medical School of Transylvania University, Kentucky, 1818.
11. Medical College of Ohio at Cincinnati, 1819.
12. Medical School of Maine at Bowdoin College, 1820.
13. Medical School of Brown University, Rhode-Island, 1821. *Discontin'd*
14. Medical School of the University of Vermont, Burlington, 1822, *do?*
15. Berkshire Medical School, Pittsfield, Massachusetts, 1823.
16. Medical College of South-Carolina, Charleston, 1824.
17. Jefferson Medical College, Philadelphia, 1824.
18. Medical School of Columbian College, District of Columbia, 1825.
19. Medical School of University of Virginia, Charlottesville, 1825.
20. Washington Medical College, Baltimore, 1827.
21. Medical College of Georgia, Augusta, 1830.
22. Medical College of the State of South-Carolina, Charleston, 1833.
23. Willoughby University, Ohio, incorporated in 1834.
24. Medical College of Louisiana, New-Orleans, 1835.
25. Medical Institution of Geneva College, New-York, 1835.
26. Medical Department of Cincinnati College, Ohio, 1835.
27. Vermont Medical School, Woodstock, 1835.
28. Louisville Medical Institute, Kentucky, 1837.

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29. Medical Faculty of the University of the City of New-York, 1837.
30. Medical Departm't Hampden Sidney College, Richmond, Va; 1838.
31. Albany Medical College, 1839.
32. Medical Department of Pennsylvania College, Philadelphia, 1839.

For a large portion of the data in this catalogue, I am indebted to the valuable historical lecture of Professor Sewall, already quoted, and to the "*Medical Student*" by Professor Dunglison, published in 1837. I may add that the article on Medical Colleges in the last work was originally published in the British and Foreign Medical Review, vol. ii. p. 583.

I have omitted the mention of several schools not incorporated, and which have been discontinued. Amongst others, the Medical School of Auburn in this state, to which Dr. Thatcher in his American Medical Biography, gave "a local habitation and a name," in 1828. I regret to say, that much of his *original* information concerning the medical schools of this state is of equally equivocal authority. He was doubtless misled by incorrect information.

I have also not included in the list of Medical Colleges, the "*Reformed Medical College of Ohio*," at Worthington in that state, a Thomsonian institution. And this I take the liberty of doing, although it is foisted among the Medical Colleges by the editors of the AMERICAN ALMANAC, and *(prob pudor!)* by the editors of the AMERICAN QUARTERLY REGISTER OF EDUCATION, (vol. xi. p. 143.) How would the latter be pleased with having Fanny Wright's Lectures placed at the foot of a list of theological colleges in the United States?

No. II.

Having for some time past been engaged in collecting the Statistics now given, I have naturally looked into every work that I supposed could afford me information. Amongst others, I have examined the AMERICAN ALMANAC, published annually at Boston, and which has given a table of the medical schools in the United States, and their students for the last ten years. I regret to say, that these tables are extremely inaccurate. Any one who will take the trouble of comparing them with those which I have given, will readily be convinced of this. As to the medical institution to which I am attached, they are correct or nearly so, for only four years out of nine. The most striking inaccuracies however, are as it respects Jefferson and the Medical College of Ohio. The number of students for the latter in 1830, '31 and '32, are put at 118 each year, and for the three succeeding years, at 110 each year.

No. III.

The following are a few facts which I have been enabled to glean concerning the number of medical students in foreign countries.

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PRUSSIA.

Average number of medical students in the Universities of Prussia in 1834.

	Natives.	Foreigners.	Total.
Berlin,	246	141	387
Breslau,	108	5	113
Halle,	78	33	111
Bonn,	136	19	155
Konigsberg,	71	11	82
Munster,	..	..	..
Griefswald,	60	6	66
	699	215	914

Average number of medical students in the Universities of Prussia, each half year, from 1830 to 1834.

		Natives.	Foreigners.	Annual average.
1830	Summer,	496	196	698
	Winter,	502	203	
1831	Summer,	495	163	693
	Winter,	553	176	
1832	Summer,	546	165	743
	Winter,	579	196	
1833	Summer,	608	185	846
	Winter,	684	216	
1834	Summer,	717	221	914
	Winter,	681	210	

Encyclopedia Britannica, 7th edit. xviii. 609.

The population of Prussia in 1834 was about 13 millions.

FRANCE.

From official documents, it appears that the number of pupils in France in the Faculty of Medicine was in

1833	2,013
1834	2,446
1835	2,672

London Athenæum, Oct. 21, 1837, p. 788.

HANOVER.

UNIVERSITY OF GOTTINGEN.

	Total No. of Students.	Students of Medicine.
1823	1420	225
1825	1545	287
1831	920	206
1832	847	167

Bulletin des Sciences Geographiques v. 206, and *The (London) Quarterly Journal of Education*, ix. 344.

SWEDEN.

"Sweden has three universities, Upsala, Lund and Abo, twelve gymnasia, and in every large town a school supported by the crown. Here boys

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remain until they are eleven, and are then sent to the gymnasia. At sixteen they are sent to one of the Universities." "The number of students at the University of Upsal from 1768 to 1777 averages about 500 annually. During these ten years, there were created 40 Doctors in Divinity, 23 in Physic, and 151 in Arts."—*Coxe's Travels in Sweden*, iv. 57, 201.

Abo is now under the dominion of Russia. Of the other Universities, the following statement is made.

	Total No. Students.	Students of Medicine.
Upsal, 1829	1443	111
1833	1381	159
1834	1303	150
Lund, 1829	640	34
1833	639	59
1834	596	50

The (London) Quarterly Journal of Education, ix. 345, 346.

UNIVERSITIES OF THE NETHERLANDS.

Students in	1824	1825	1826
Theology	246	325	351
Law, ...	723	807	809
Medicine, ...	355	374	386
Sciences, ...	233	226	214
Philosophy and Letters, ...	718	904	992
Total, ...	2275	2636	2752

Number of Students in 1826.

	Theology.	Law.	Medicine.	Sciences.	Letters.	Total.
Leyden, ...	103	138	60	8	227	536
Utrecht, ...	154	103	20	33	170	480
Groningen, ...	94	73	28	14	91	300
Louvain, ...	....	154	70	63	335	622
Liege, ...	....	197	84	63	115	491
Ghent, ...	....	144	124	33	54	355
	351	809	386	214	992	2774*

*22 of the School of Mines added to Liege.

Quetelet, Recherches Statistiques de Pays Bas, Table 6.

Fairfield, Jan. 2, 1840.

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ART. XI. ANNUAL ADDRESS *delivered before the Medical Society of the State of New-York, Feb.* 5, 1840, *by* LAURENS HULL, M. D., *President of the Society.*

GENTLEMEN OF THE SOCIETY:

In presenting myself before you at the conclusion of my term of office, I have to regret that continued ill health previous to the meeting of the Legislature, and my official duties since, have in a measure prevented that preparation which in some degree is due to myself, and certainly to the society. For the short time that I shall occupy your attention, permit me to address you on a subject which I trust will meet with a ready response. I allude to the *improvements* in *medicine* which have illustrated the last half century.

At a time when at least efforts are making to underrate the utility of the profession, and a portion of the community seem to be under the impression that they already know enough of medical science, such a survey may not be without its benefits. It will at least recall to our recollection how much we owe to our predecessors and contemporaries, and it may incite our junior brethren to follow in their footsteps.

The general direction of the present age is favorable to inquiry. Amidst the great changes that society has undergone during the last fifty years, none is more remarkable than the developement of intellect in every employment of life. It would be unjust to say that this has not always occurred. Certainly great talents have at all times from the earliest ages appeared on the theatre of action, but the great mass of the community have been far from being extensively influenced by them. Conquerors have overthrown empires and erected new ones, but the inhab-

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itants have only passed from one state of servitude to another.

It was not until the invention of the art of printing that a medium of communication was afforded capable of diffusing light and knowledge amongst all the human race. Even then centuries were necessary, before the ability to apply its advantages was attained, and even now in many parts of Europe, such is the ignorance of a portion of the inhabitants that its blessings are to them a sealed book. But with us and the nations of the old world most nearly connected with us, the art of printing has exercised much of its enlightening influence upon the mind. The revolutions incident to the discovery, that mankind were not exclusively born for the benefit of kings and emperors, have further directly increased the mental energies. And however we may regret the violence which has tarnished these events, yet in this country we have at least to rejoice that freedom of mind and action, is an hereditary privilege. Every occupation has felt this, some indeed from peculiar circumstances and causes more than others, but none has escaped the invigorating stimulus.

Our profession, at all times recognized as a useful one, has with the progress of freedom, become a dignified one, and with the new impulse to scientific discovery, has in several countries, attained to the rank of a learned one. With the increase of its votaries, new fields of investigation have been thrown open and we are constantly finding that success is attending every industrious effort.

In passing from these general remarks to the selection of some topics illustrative of my subject, I know of none that better deserves the first notice, than that of VACCINATION. Although it has frequently been a subject of consideration before this society, yet its abiding interest, as well as its earlier and later history, are striking manifestations of the efforts, and may I not say, of the attainment of improvement by our profession. It is now but little more than

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forty years since Jenner published his discovery to the world. Previous to that period small-pox had either ranged unrestrained, or if somewhat shorn of its violence by inoculation, still its danger was alarming, and its consequences often fatal. How many communities and even nations have been desolated by this pestilence. Every populous city numbered annually its thousands of victims. Whenever it came among savage nations, it almost exterminated them. Many of our native tribes of Indians were thus reduced to a handful. The efforts of physicians to diminish the mortality, were not without some success, and where inoculation became the prevailing practice, and a proper mode of treatment was pursued, many persons were saved. But among the poor and the thoughtless, this precaution was constantly neglected, and accordingly at intervals of a few years, the disease, as an epidemic, would suddenly make its appearance, spread itself with inconceivable rapidity, and destroy most of its subjects.

It was to preserve the human race from the constant visitations of this desolating scourge, that Jenner studied and investigated for nearly twenty years before he announced the nature of the vaccine disease. It is in vain to endeavor to deprive him at the present day of the honor of the discovery, by attributing the first use of it to the Chinese, or by bringing forward cases of inoculation with it previous to his time. If there were such, they were either not heeded, or ridiculed. We know that Jenner himself was reproached with too constant and unremitted attention to this subject, that he was refused the publication of an essay on it in the transactions of a learned society, and that he finally came forward supported mainly by the hope of doing good. He was met by warm friends and violent enemies, and while we concede that some of the last were of our own profession, we are at the same time enabled to say, that they were not among the most emi-

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nent or the most enlightened. All of these last, as they became acquainted with the subject, ranked themselves amongst his disciples; and it is only to be regretted that some were desirous of engrossing too much of the merit due to him alone. It is not at all improbable that the ambition of some men in London to be in the possession of influence and power in directing the vaccine inoculation, produced an injurious effect. They pursued it in the midst of small-pox hospitals, and in some instances, the matter of both diseases became mixed.

Such were some of the obstacles which met Jenner on the promulgation of his discovery. There are others which have constantly attended it. No sooner was its protective influence generally credited, and the mode of performing inoculation disseminated, than the idea became prevalent that all and every one could introduce it, without medical advice or examination. It was in vain published abroad, that the matter might be spurious, that the vaccine disease had a regular increase, progress and diminution, characterised by peculiar appearances in the vesicle, and that this might be counteracted by other diseases in the system. It was in vain urged that there were constitutional symptoms necessary to be present, and again that any injury to the vesicle might destroy the protective power of vaccination. Disregarding these admonitions, the matter was introduced with a pin, a knitting needle, or a knife, and when it was once inserted, no matter at what stage it had been taken, but little attention was subsequently paid to its further effects. It seemed indeed, as if many supposed that from that time forward, small-pox was extirpated, and that no more care was necessary to guard against its ravages. We have of late years found the melancholy opposite of this. The epidemic has extended itself far and wide, and in numerous instances it has seized those who were thus imperfectly protected.

I am certainly warranted in ascribing the presence of

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the varioloid, which is nothing more than a mitigated form of small-pox, to the cause now stated. But in connexion with this we have also learnt, that even in these cases, vaccination, although not a perfect protection, has greatly diminished the virulence of the original disease. In this country, from the day of the introduction of vaccination, the medical profession embraced its use with one heart and one mind. The impediments to its complete triumph have been those on which I have already dwelt. The present generation do not sufficiently estimate the danger of former times, and there is therefore a growing indifference to the proper diffusion of vaccination.

I have for some time felt a perfect conviction that the government should in some way or manner interfere to render its practice general and satisfactory, and I am happy to find, from communications to the State Society, that I am not alone in this opinion. If a provision could be obtained, preventing the admission into common schools of any pupil, without a certificate from the physician that he he or she had been properly vaccinated; and if a register could thus be kept, a foundation would at once be laid for the general introduction and proper continuance of this important preventive. Along with this, some aid should be bestowed on institutions for keeping up a supply of the genuine matter.

In all these observations, I have not adverted to the fact, that physicians at once lost the most profitable part of their practice, by the introduction of the Jennerian discovery, and that they most cheerfully resigned it. A single example of this kind is sufficient to confute the many stereotyped slanders against the profession. A new era is, however, apparently rapidly approaching us on the subject now under consideration. It is well known that Jenner was of opinion during the whole course of his life, that the variolous and vaccine diseases were once the same, having received their present peculiarities from being

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transmitted through the human and the animal race, for a long period of time. The name that he gave the latter, (variola vaccina) is a full proof of this. Now amidst the numerous instances of the failure of vaccination as a complete protective, it has become a frequent subject of discussion and inquiry, whether during the last fifty years, the vaccine matter in passing through the human system, a repeated number of times, may not have lost its power. And again, another idea has been broached, that infants, although very properly vaccinated at an early period of their lives, may not, as they grow up to manhood, undergo such constitutional changes as to injure the efficacy of the first operation, and require revaccination. It is not to be denied, but that there are many startling facts which give an air of probability to each of these suppositions. What, let me ask, is the conduct of medical men on these important questions? They do not sit listless, nor abandon the inquiry, nor yield to despair of overcoming the dreaded evil of new eruptions of the scourge. In every part we find them engaged in new researches. In England and France, fresh matter has fortunately been again obtained from the cow, and experiments with this are in a rapid course of trial. It has been transmitted to this country, so that we also may, if possible, reap the benefits. Revaccination also, at the suggestion of physicians, has been extensively performed with remarkable results, showing that at least a large proportion of individuals previously vaccinated were left unprotected. Have we not reason to hope that when so many ardent and enlightened men are engaged in this inquiry, they will yet complete and confirm the benefits of the discovery of the immortal Englishman.

But I have probably dwelt too long on this engrossing theme, and must hasten to the consideration of another. The fear of contagion has long exercised an undue influence over communities. I speak not now of those com-

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plaints which are known to propagate themselves by contact, as measles, scarlatina and the like. Fortunately the human race are generally liable to but a single attack of each of these, and it seems kindly ordained that there are always a sufficient number exempted, to watch over and take care of the new subjects of them. Families are not broken up by their appearance, nor are the common duties of humanity neglected in any portion of society. But how different has it been with the class of febrile diseases, that were usually termed contagious. Taking Turkey as an example, though not without near approaches to it in other countries, we find that whenever their epidemic plague breaks out, the unfortunate sufferer is abandoned by friends and attendants, and left to linger out his miserable existence without aid. Houses are deserted, and whole districts depopulated. Even with the yellow fever of our own and tropical climates, what consternation and horror seized on all apparently within its influence. How much misery has been accumulated, from an apprehension that this disease could be communicated by contact. It is from such mistaken ideas, that the ancient institution of quarantine took its rise, and which is even now in full vigor in many parts of Europe, confining the passenger who comes from a merely suspected port, for twenty or thirty days on board his ship, or else immuring him like a prisoner on the shore for a similar period. Nor is the dread confined to human beings. Letters, and even gold and silver coin, have to be subjected to the purifying process, before they can be touched. Apart from the serious injury to commerce, and the free intercourse of mankind, such regulations are calculated to cultivate a fearful depression of mind, which operates with redoubled force in periods of sickness. Sometimes indeed the precautions become ridiculous, as when France, not many years since, placed an army of men on the borders of Spain, to keep out at one and the same time, liberal principles and the yellow fever.

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I claim for the medical profession, that it has, both in this country and abroad, been the principal means of enlightening the public mind on these most mischievous doctrines. The idea that diseases mainly dependant on local causes, which probably vitiate the air in the situations where they break out, can be carried into healthy parts, and there propagate themselves, has been amply refuted in a thousand instances. Instead of believing that the air around us is thus impregnated with poison, physicians have taught the public to look at their own residences, whether in the city or the country, for the reasons of the propagation of fevers. If any principle can be deemed well established, it is that filth, poverty and vice are the aliment which nourishes them, which envenoms their attacks, and exalts their mortality. If society be once deeply impressed with these truths, the consequences cannot fail to be salutary. Instead of abandoning the wretched and destitute, they will be more carefully watched — they will be removed from their dangerous dwellings to infirmaries and hospitals, and that attention which is indispensable as to cleanliness, sufficient diet, and proper medicines, will be duly bestowed, not alone for the removal of existing disease, but in the full expectation, that the causes of it may thus be altogether obviated. Instead of tracing a fever from Boston to New-York, from New-York to the West-Indies, and from the West-Indies to Africa, our citizens are beginning to apprehend, that when a virulent fever breaks out, even under the most suspicious circumstances of importation, there must be something at home, on which it is enabled to seize, in order to continue its propagation, and they are thus taught to know, that the vitiated air, whether of dwellings, or of a neighborhood, has frequently been mistaken for atmospheric contagion. Even the farmer has been instructed how marshy grounds, decaying vegetables, and possibly animal putrefaction, may impair the healthiness of his residence.

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That there are diseases whose rapid spread we can hardly explain, except on the idea that some matter, capable of producing them, must be carried along in the air, will not be denied. Of these, none are more striking in their character, than the influenza and the Asiatic cholera. From undoubted history we can trace their progress over nearly the whole of the habitable globe,—commencing in Asia, gradually marching over it and extending to Europe, and finally spending their force upon this continent. But we have no proof, although it is credited of the latter, that these diseases are communicable by personal contact.

Passing from the consideration of improvements which have so distinctly meliorated the condition of society, that the most wilful cannot avoid acknowledging them, I would next briefly advert to the individual advancement that has characterised our science of late years. Never have there been a greater number of ardent investigators devoted to this, and they have laid all the kindred sciences under contribution. No sooner is a new substance discovered by the chemist, than ingenuity is on the watch whether it may not be usefully applied in medicine. The history of iodine is not one of the least remarkable of these. Discovered accidentally by a manufacturer, its curious properties at once attracted the attention of scientific men. With the progress of analysis, it was found to be contained in various substances, and amongst others in the sponge. This latter substance had for some time obtained a local reputation in the treatment of goitre or swelled neck. A physician, aware of this fact, ventured to apply iodine in its pure form, and the result proved that it was an agent of great power. No doubt now exists as to its influence over the glandular system, and the only *question* now is, under what form it can best be used, so as to obtain its full value without any hazard. It has also from analogy been advised in the treatment of scrofula, but I believe that medical men are far from being agreed as to its utility in

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that complaint. This article is only one out of many that have been introduced from the mineral kingdom in the materia medica.

As if to shame the deluded followers of an exclusive treatment by vegetable remedies, we have the extensive contributions of physicians both at home and abroad in elucidation of the properties of our own native plants. To the industry and talents of Bigelow and the Bartons, we in this country owe the accumulation of a vast store of information well arranged and immediately applicable to the treatment of diseases. The moment that it can be shown that any of our native herbs possesses qualities in any degree or manner superior to those in use, medical men do not hesitate to ascertain its virtues. Every periodical bears testimony to this. And it is highly probable that all the knowledge assumed by pretenders, has been gleaned or stolen from professional works. In spite however of the extension of science, the work of destruction goes on. A medicinal article it is urged, can at least do no harm, if it be only a vegetable one, while the deluded sufferers will not remember, that some of our most active poisons are of the vegetable tribe. But enough of this hackneyed topic. It is part and parcel of the deep ignorance which has been permitted too long to hang over a portion of the community. Let us hope that with the diffusion of education its mists will be dissipated.

The successful investigation of the nature of diseases also occupies a prominent place among the improvements of the last half century. It has been a matter of reproach that formerly theory engrossed too large a share of attention. The truth of this may be conceded, but at the same time, it must be recollected, that in medicine, theory is frequently nothing more than an orderly arrangement of a number of facts so disposed, that we are enabled to explain a series of phenomena. The difficulties attendant on this have been well illustrated by the successive changes of opinion

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that from time to time have influenced the medical world. From the mechanical doctrines of the olden time, to those of Boerhaave, from the theories of Stahl and Hoffman to those of Broussais, talented advocates of each have not been wanting, and all have added new and interesting facts to the history of science. But the character of the last half century has in general been infinitely more practical. Not contented with dry discussion, many have been most earnestly engaged in actual examination, and the department of pathological anatomy has been most successfully cultivated. If there be any truth in the axiom, that in order to treat a disease properly, it is necessary first to know its nature, then all must concede the importance of the inquiry. Indeed the pursuit cannot fail of increasing that knowledge which is most needed, if we only keep in view at the same time, the possibility that morbid appearances may be occasionally the results, instead of the causes of disease.

Apart from the new light thrown on the nature of fever by these inquiries it is sufficient to recur to the information obtained, as to the origin of that wide spread and destructive disease, consumption. The early stages of its commencement have been elucidated, and something has been learnt, as to warding off its progress, but unfortunately we are yet to find a remedy that can stay its ravages. Nor are the inquiries concerning nervous diseases without important value in medical practice, founded as they are on some of the most brilliant discoveries in anatomy of these later times.

I do not feel myself competent to detail even a tithe of the modern improvements in surgery. Men of great talents have appeared in this department, and they have obtained their reward in the acquisition of wealth, and the establishment of a high and extended reputation. Not to speak of living merit, it is sufficient that we in this country, are enabled to boast of a Physick, as equal at least to

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any that Europe has produced. The surgeon indeed has a great advantage over the physician in that his operations are witnessed by numbers out of the profession, and even if he performs them with merely manual dexterity, he is sure to find numerous heralds of his fame. The effect of this has sometimes unquestionably proved injurious.

It cannot be denied that some surgeons have been too fond of operating, and have not sufficiently reflected whether this was on the whole required or not. It would seem to be sufficient, if they can acquire some temporary eclat, without duly considering whether the event may not shorten the life of the patient. I am therefore proud to mention among the real improvements even of the present time, that the best and most experienced surgeons unite in acknowledging that formerly they operated too often. It is stated in a late journal that Dr. Gibson of the University of Pennsylvania told his class this winter, that in a recent visit to London, he asked Sir Benjamin Brodie whether he performed as many amputations for diseases of the joints as formerly? The reply was "Oh no, not the twentieth part." How then do you manage? By rest, position, splints and diet — was the answer. I am also told that Sir Astley Cooper and Mr. Lawrence have quite lately published a declaration to the same effect as to operations in general.

I will only occupy your attention with a single topic more in elucidation of my subject — and which I feel I can do in especial reference to those whom I am now addressing. It is surely not saying too much that the establishment of medical societies has greatly tended to improve our science during the last few years. They are established far and wide and each has done something to increase or to diffuse knowledge. They are eminently calculated for these purposes if the members will duly appreciate their privileges, and exert their talents. It is only to be regretted that their true value is not more steadily kept in view.

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Besides the communications that may be read, great benefit has also been received from amicable discussions on them, and thus a facility both of speaking and writing has been acquired by many.

And now gentlemen, while on the eve of retiring from the honorable situation of President of your body, allow me to return you my thanks for your kind indulgence, and for the aid which you have always cheerfully extended to me in my attempt to perform the duties necessarily connected with that office; and to express my most cordial wishes for your prosperity, both as an institution connected with the best interests of our people and as individuals.

Permit me in conclusion, to express the hope that we at least of the State of New-York may not be among those who contemplate with indifference the improvements in the science of medicine.

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ART. XII. *Report of a Committee of the State Medical Society on the subject of* MEDICAL EDUCATION. *Presented Feb.* 4, 1840.

[On the 7th of February, 1839, the following resolution, on the motion of Dr. Goodrich, delegate to the Society from the Medical Society of the county of Rensselaer, was adopted. *Resolved*, That the subject matter of the resolutions of the majority of the Committee of which Dr. Manley was Chairman, together with the resolutions reported by the Committee of which Dr. Rogers was Chairman, be referred to a Select Committee, and that they be required to give the whole subject of medical education in this state a thorough investigation, and report to this society at its next annual meeting. Drs. Manley, Beck, and McCall were appointed the Committee.]

The Committee appointed in February last to report at the present meeting of the Society, on the subject of Medical Education, with directions to give the same "a thorough investigation," beg leave to present the following

REPORT:

The first colonial assembly of the province of New-York met in the year 1683, and probably regularly thereafter continued their annual sessions. It was not, however, until 1760, that the subject of the due regulation of the medical profession attracted their attention. In June of that year, an act was passed, entitled "*an act to regulate the practice of Physic and Surgery in the* CITY OF NEW-YORK." Its preamble gives the following exposition of the condition of the profession. "Whereas many ignorant and "unskilful persons in Physic and Surgery in order to gain "subsistence, do take upon themselves to administer phy-"sick, and practice surgery in the city of New-York, to the "endangering of the lives and limbs of their patients; and "many poor and ignorant persons who have been persuaded "to become their patients, have been great sufferers there-by"——. It was therefore enacted, that after the publica-

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tion of this act, no person whatsoever should practise as a physician or surgeon in the city of New-York, before he had been first examined in physic and surgery, and approved of and admitted by one of his majesty's council, the judges of the supreme court, the attorney general, and the mayor, for the time being, or by any three of them, *taking to their assistance*, for such examination, *such person or persons as they in their discretion shall think fit.* If the candidate be approved, the examiners were directed to give him a certificate to that effect; and this certificate gave him the privilege to practise physic, or surgery, or both, throughout the province of New-York. A penalty of five pounds, with costs, was provided against any person practising without the above testimonials.

Useful as the above law undoubtedly proved in its general operation, the Committee cannot proceed without first calling the attention of the Society to the precedent established by it, that *persons not belonging to the profession* were constituted judges of the qualifications of those soliciting a license. The high officers named in the law were indeed authorised to take other persons to assist them in the examination, but it was left to their discretion. It will be presently seen that the influence of this provision continued through a series of years.

After the revolution, the first act to regulate the medical profession was passed as late as March, 1792. In its operation it was confined, like the one of 1760, to the city and county of New-York. Its preamble also gives a similar melancholy picture of the state of medical practice. "Ma-"ny ignorant and unskilful persons presume to practise "Physic and Surgery within the city and county of New-"York, to the detriment and hazard of the lives and limbs "of the citizens thereof." The requisitions of this law are of a higher cast than those of its predecessor. They require, 1. Studying with a reputable physician for the term of *two years*, if the individual has graduated at some col-

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lege in the United States; or, *three years* if he has not. 2. An examination before the governor, chancellor, the judges of the supreme court, the attorney general, the mayor and recorder of the city of New-York, or any two of them, who are to take to their assistance, any *three respectable practitioners, with whom the examined person has not lived.* The certificate of this board constituted the license to practise; and no individual without these testimonials, was allowed to have a legal demand for his services. The law, however, declares that its provisions are not to affect those already in practice, nor to prevent physicians from neighboring states or counties being called in consultation; nor, finally, to affect those who have regularly received the degree of Doctor of Medicine.

We come next to a law whose provisions were binding throughout the state. This was doubtless rendered necessary by the increase of the population and the wants of the community. On the 23d of March, 1797, the first general act was passed to regulate the practice of Physic and Surgery in the state of New-York.

The first section is retrospective, and examines into the right of individuals to assume the title of physicians. It ordains, that from and after the 1st of October, 1797, no person *now practising* physic or surgery, or both, shall be allowed to continue to do so, unless he shall have produced satisfactory evidence to one or others of the officers mentioned in the previous act, that he has practised physic and surgery for the terms of *two years next preceding the day aforesaid*, or shall in a similar manner exhibit evidence of having studied medicine for the term of two years. Either of the magistrates mentioned above, was authorised to grant him a certificate; and this was to constitute his license, as he is directed to file it in the office of the clerk of the county where he resides; and the penalty for practising without such a filed certificate was declared to be twenty-five dollars.

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The second section relates to the student: After the same date as above, he was not allowed to practise, unless he exhibited to either of the above magistrates, a certificate from one or more respectable physicians or surgeons, with whom he had served his apprenticeship, stating that he had studied the profession for the term of *four years*, and that he was well qualified. The persons signing the certificate were to make oath to the same, and the magistrate was then to endorse on it, a permit allowing the individual to practise. This was also to be filed in the clerk's office. Graduates of literary colleges were, however, allowed to complete their term of study within three years; and again all those who had received the degree of Bachelor of Medicine, or Doctor of Medicine, from a medical institution, (there were then only three medical institutions, Philadelphia, Columbia College, and Harvard,) were allowed to practise, on filing their diplomas. One or two clauses were also added, directing the mode of proceeding, in case the physician signing the certificate was dead, or non resident. Proof was in such instances to be taken, and if it satisfied the magistrate, he was authorised to give the necessary permit.

As the operation of this law was co-extensive with the state, the act of 1792 was repealed.

Certainly these provisions reflect much honor on their framers. The Committee are not aware whether the law in question met with opposition in its passage, but judging from the course of subsequent legislation, it is highly probable that it did. And this circumstance ought to be taken into account in scrutinizing any enactments of this description. There are always individuals in every legislature, who seem to desire to lower, or at least keep down all efforts at improvement, and profess themselves satisfied that things shall remain as they are. Such persons readily become violent opponents of a law like the present, which aimed at gradually elevating the medical character.

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There were, however, serious defects in the acts now noticed. Although it dealt leniently with those already in practice, and enabled them to continue in the profession on merely shewing that they had been in practice for two years preceding, yet as it concerned the student, there was a serious omission. He was enabled to commence practice on the certificate of his preceptor, and *no examination* was required. In this respect then, the law in question was not so useful as the previous one.

We are now, however, approaching the period when the profession were to become the sole judges of the qualifications of those who desired to become its members. There was to be an end to the supervision of the legal profession, who in the form of examiners, or judges of certificates, had for nearly half a century held a decided superiority over their less distinguished brethren.

In 1806, a law was passed to *incorporate medical societies, for the purpose of regulating the practice of Physic and Surgery.* As this act, although somewhat altered or amended subsequently, is the basis of our present medical code, its provisions require a brief consideration.

It directs that the physicians and surgeons in the several counties of this state, *now authorised to practise*, shall meet on the first Tuesday of the ensuing July, and then if their number be not less than five, form themselves into a medical society. These societies were again, by delegates, to constitute a state medical society, which was to meet annually at the capitol of the state.

Each of these corporate bodies was authorised to appoint censors, whose duty it was to examine all students presenting themselves. These censors were thus constituted the sole power from which *licenses* to practise could be obtained; and the law declared, that all who attempted to practise without such license or a proper diploma, should be disqualified from collecting debts on that account. The student was to exhibit testimonials of having studied medi-

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cine for the term of *three years* before the censors were permitted to commence the examination; but always proceeding on the principle of improving the profession in future, and not pressing too hard on the peculiar situation of those now in practice or preparing, the law also allowed such as had commenced their studies prior to the 1st of January 1805, to study *four years*, and then to be licensed according to the law of 1797, that is, *without examination*. The last law was declared to be repealed on the 1st of September, 1806, at which time the present act was to go into operation.

The history of the origin and successful passage of this law has been given by Dr. John Stearns in the New York Medical and Physical Journal, (Vol. 7, p. 380). The first movements in its favor originated in the county of Saratoga, of which that gentleman was then a resident; and there is no doubt but that he was its principal and most efficient friend. The medical gentlemen of Saratoga interested their professional brethren in the adjoining counties of Washington and Montgomery, to unite in the undertaking, and the proposed plan of improvement was thus brought before the Legislature. Fortunately Dr. Alexander Sheldon of Montgomery, one of the committee appointed to prosecute the application, was this year (1806) chosen speaker of the Assembly. The bill in its progress met with the most powerful opposition. Dr. Stearns observes that "the danger to which the tranquility of the state "would be exposed by the incorporation of forty distinct "associations of physicians, was so magnified by the oppo- "sition, and the impression thereby made on the house was "so great, that but feeble hopes were entertained of its suc- "cess. At this critical juncture, when a decisive vote "against the bill was every moment expected to be taken, "the late honorable William W. Van Ness rose its most el- "oquent and powerful advocate. And perhaps (adds Dr. "Stearns) the pre-eminent powers of his parliamentary elo-

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"quence were never exerted with better effect. He refuted "the arguments of the opposition, portrayed the benefits to "the profession and to the public in such glowing colors, "and with so much energy and zeal, that the opposition be- "came feeble, the friends of the bill increased, and from "that moment the successful issue was rendered certain. "To his memory do the profession owe a monument of "marble, with their gratitude deeply engraven upon its "tablet."

"On the first Tuesday of July, 1806, three months after "the passage of the law, about twenty societies were organ- "ized, pursuant to its provisions; and within two years, "scarcely a county in the state, of any considerable popula- "tion, was without a duly organized medical society."

The great and striking feature of this law as it respects medical education, was its requisition of *an examination by practitioners*, before the student was allowed to become a member of the profession.

Various amendments to this law were from time to time found necessary. In April, 1807, an act was passed which contains several clauses, regulating the internal organization of the medical society of the state. It then ordains that the penalty for practising without being authorised according to the act of 1806, should be *five dollars per month*. This, however, was not to prevent a person from using or applying for the benefit of the sick, any roots or herbs, the growth of the United States. In March 1809, it was enacted that the degree of Doctor of Medicine granted by the regents of the university should allow the person obtaining it, to practise physic and surgery, any law to the contrary notwithstanding. Again in May 1812, the penalty for practising without license was increased to *twenty-five dollars* for each offence; and licenses are also directed to be deposited in future in the county clerk's office.

On the revision of the laws in 1813, the above acts of 1806, 1807, 1809 and 1812, were consolidated with the exception of those provisions which had become obsolete or

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nugatory. Accordingly, the revised law of April 10, 1813, is the authority to which physicians were to refer in all disputed cases connected with this subject. This law will be found in the appendix (p. 21) to the 1st vol. of the Transactions of the Medical Society of the State of New-York.

In 1818 the legislature superadded to the requisites already in force, some additional ones. By the act of 1813 the student was required to study medicine *three* years, and at the end of that time submit to an examination. By the present act it was declared that from and after the 1st of May, 1821, he should study four years, with however, the following exceptions: One year might be deducted from the above, provided he had attended to classical studies for that period after the age of sixteen; and again, "*attendance on a complete course of lectures delivered by each of the professors, on all the branches of medical science in either of the medical colleges or institutions of this state or elsewhere*," might be accepted in lieu of one year's study. The examinations were to be continued, but no person was to be licensed, unless he had arrived at the age of twenty-one years.*

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*In the law of 1818, also appears the first enactment as to filing certificates of the commencement of the term of study. As this, however, with all the provisions concerning it, and some concerning examinations were incorporated into the "*General Regulations*," we postpone the mention of them.

So also in strict chronological order, it would be proper to state, that the following constitutes the second section of "an act further to amend "the act to incorporate medical societies for the purpose of regulating "the practice of physic and surgery in this state," passed April 13, 1819.

"That no college of physicians and surgeons in this state shall confer a "diploma for the degree of Doctor of Medicine upon any student until such "student shall have fully complied with the requisitions contained in the "first section of the act entitled an act to amend an act to incorporate me-"dical societies, &c. passed April 20, 1818; and shall also in addition "thereto, have attended one complete course of lectures delivered by each "of the professors of such college."—*Session Laws*, 1819, *p.* 308.

This also in a less ambiguous form is incorporated into the "General Regulations"

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It was made a question by some, after the passage of this act, whether cases might not arise in which students could justly claim according to the above, a deduction of two years' study; having, for example, attended to classical studies for one year after the age of sixteen, and also attended a full course of medical lectures. The Committee, however, are not aware that any such claim was ever set up. It was provided for by the enactments of 1827. These are to be found in our present Revised Statutes, under the title of "*General Regulations concerning the practice of Physic and Surgery in this state.*" (Appendix, p. 17 of 1st vol. Transactions State Medical Society) As the ordinances contained in them are with some few alterations (which we shall specify) now in force, and in conjunction with the act to incorporate medical societies, constitute the Statute Law on the subject of medical education, we shall briefly analyze their contents.

1. *As to a license to practice Physic and Surgery,* it is ordained, (Sections 8, 9, 10, 11, 13, 14, 15, 19,) that no student shall be admitted to an examination by any medical society, until he shall have completed with some physician and surgeon, duly authorised by law to practise his profession, the term of medical study. And this term is defined as follows: It shall be four years, but a deduction in no case to exceed one year, may be made from it in either of the following cases—(a) if the student after the age of sixteen shall have pursued any of the studies usual in the colleges of this state, the period during which he shall have pursued such studies shall be deducted. (b) If the student after the age of sixteen shall have attended a complete course of all the lectures delivered in an incorporated medical college in this state or elsewhere, one year shall be deducted. In order to fix a time from which the commencement of a student's term of study should be dated, his preceptor is directed to file a certificate with the President of the county medical society, stating the date in ques-

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tion, and from that period it shall be deemed to commence; and if there are any deductions to be made agreeably to the above provisions, they are also to be stated; and the President is then directed to annex an order to the certificate, setting forth how long the term of study is to be. The student is always to be examined before the county medical society of the county in which he has pursued medical studies for four months immediately preceding his examination. But if the student had attended a course of lectures in either of the medical colleges of the state, (then New-York and Fairfield) he might be examined and licensed either by the medical society of the county in which such college is situated, or by that of the county in which he shall have resided previous to such attendance. This last clause was repealed by an act passed May 26th, 1836, and it was then ordained that no student who has attended one or more courses of medical lectures, shall be admitted to an examination by any medical society, except of the county in which he shall have pursued his medical studies for four months immediately preceding his attendance upon his last course of lectures, or by the censors of the state medical society. The right of appeal to the state medical society, in case a student is rejected by a county society, is given—but he cannot apply to the censors of any other county medical society; and if a student is rejected either on an original examination or an appeal, by the censors of the State Medical Society, he cannot be admitted to an examination by any county society. Lastly, a copy of the license granted to the student by either of the above societies, as the case may be, is to be deposited in the office of the clerk of the county in which he resides, and who is required to file the same; and until such license is so deposited, the individual attempting to practise shall be liable to the same penalties as if he had no license.

2. *As to the degree of Doctor of Medicine.* This degree, as already stated was, when conferred by the regents

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of the university, made a license to practise, by the law of March, 1807. The limitations to this power, of the regents are given in sect. 12, of the regulations. "No person "shall receive from the regents of the university a diploma "conferring the degree of Doctor of Medicine, unless he "shall have pursued the study of medical science for at least "three years after the age of sixteen, with some physician "and surgeon duly authorised by law to practise his profes- "sion, and shall also have attended two complete courses "of all the lectures delivered in an incorporated medical "college, and have attended the last of such courses, in the "college by which he shall be recommended for his de- "gree."

Lastly, sect. 20, is in the following words: *No person under the age of twenty-one years shall be entitled to practise physic and surgery in this state.*

After these enactments there do not appear to have been any laws passed, bearing on medical education, until 1835. The medical faculty of Geneva college were, by an act on the 27th of March, of that year, recognized as a medical school, and the trustees of that institution were empowered on their recommendation, to grant the degree of Doctor of Medicine to students qualified in the same manner as those on whom the regents could confer the degree. This degree was declared a license to practise physic and surgery in this state.

On the 11th of February, 1837, the university of the city of New York, was authorised by law to establish a medical faculty, and its degrees limited also as above, were also declared licenses to practise. Lastly, on the 16th of February, 1839, the Albany Medical College was incorporated, with similar powers and privileges as the two institutions just named.

Such are the statutory provisions now in force in this state on the subject of medical education. It remains to

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inquire whether they are susceptible of improvement; and in doing this it will tend much to simplify the subject, if we notice the various requisites separately.

1. PRELIMINARY EDUCATION.—The only inducement held out to the student of medicine, in order to acquire a proper preliminary education, is this: If he when above the age of sixteen, has attended to the studies usually pursued in our colleges, for the space of a year, that space of time may be deducted from his four years' term of study. But in the same section, the same deduction is allowed if he has attended a full course of lectures; and it is expressly ordained that in no case shall the deduction exceed one year. Thus it is no matter whether the student has fulfilled both demands or only a single one, as to his time. The Committee do not complain of this; the time of study is not by any means too long. It should rather with reference to the above requisitions be lengthened.

Let us for a moment ascertain what is the amount of preliminary education required in the other liberal professions. Among the Clergy, we know that there is no statute law, but in each denomination its internal regulations are of binding force. Now it is well understood that in most of these no student is admitted to the study of Theology, unless he has completed a collegiate education, or in lieu thereof undergoes an examination on the studies usually pursued in such institutions. The exceptions to this are not sufficient to invalidate the general rule, and we know that those religious sects which have been the latest in pursuing the study of the higher branches of learning, are now making up for their lost time by the rapid and wide establishment of colleges and academies under their own direction. It cannot then be denied but that the clergy are educated men, and that the regulations of their ecclesiastical bodies act on the students with the force of law —requiring of them four years of preliminary preparation before they enter on the study of theology.

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How is it with the legal profession? Here the chancellor, and the judges of the supreme court have the power given them by law to prescribe the course of study. The requisites are identical in both courts, and as those of the supreme court are the most minute, we shall give them in detail, particularly as we shall need to refer to them on other points.

"No person shall be permitted to practise as an attorney or counsellor of this court, without a regular admission and license; and in order to obtain such admission and license he must be examined under the direction of this court. No person shall be admitted to an examination as an attorney, unless he shall have served a regular clerkship of seven years in the office of a practising attorney of this court; but if he has regularly pursued classical studies for *four* years, or any shorter period after the age of *fourteen*, it may be allowed in lieu of an equal time of clerkship. The extent of such allowance, must at the commencement of the clerkship be ascertained and settled by one of the clerks of the court by an order to be signed by him.

The evidence of such classical studies shall be, 1. a diploma conferring the degree of Bachelor of Arts by some incorporated college, or a certificate of the President of said college. 2. If neither can be produced, an affidavit of the teacher or teachers with whom the student has pursued his studies, stating the time spent and the studies pursued, with a specification of the books used, *or* 3. if the teacher be dead or absent from the country, so that his affidavit cannot be obtained, then the affidavit of the student himself stating such death or absence, and also the time spent with his teacher or teachers, and the books studied by him under each teacher. When the person applying for an order to allow classical studies has no diploma or certificate, an affidavit shall also be produced, stating the qualifications of the teacher or teachers.

Time spent in classical study without the aid of a com-

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petent teacher, or time spent in those studies which are taught in common schools, and compose an ordinary English education, including English grammar, arithmetic and geography, will not be allowed. And in every case it must be shewn by affidavit, that the studies were pursued after the person applying attained the age of fourteen years. The clerk shall file in his office the papers on which the application is founded, unless it be founded on a diploma. In such case he shall state, in his order of allowance, that such diploma was produced to him.

It shall be the duty of the attorney with whom the clerkship shall be commenced, to file a certificate in the office of one of the clerks of this court, certifying that the person has commenced a clerkship with him; and if an order has been obtained, as above mentioned, allowing a shorter term than seven years for such clerkship, the same shall be filed with such certificate, and the clerkship shall be deemed to to have commenced on the day of the filing of the certificate."

Lastly, "It shall also be the duty of the attorney to give to a clerk, when he shall leave his office, a certificate stating his moral character, the term of clerkship which he has passed with him, and the periods which have been allowed him for vacations; it being understood that not more than three months shall be allowed for vacations in any year." (Rules and orders of the Supreme Court of the State of New-York, January term, 1837.)

Can any reason be assigned why the requisites for entering on the study of medicine should be so decidedly less than those of the other professions? A knowledge of the learned languages is certainly quite as important. They furnish in a great degree the nomenclature of our medical works. These are filled with words derived from the Latin and Greek—words which when understood become the representatives of ideas that require long and copious definitions in English. Again, would it not be a great ad-

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vantage to the pupil to acquire early a knowledge of the elements of Chemistry? This study enters even into our system of academical education; and the boy at fourteen or fifteen often knows more of it than the student at eighteen, commencing his studies. But above all, provision should be made for the acquisition of the English language, so that it can be written with accuracy and fluency.

Certainly the importance of a well educated profession cannot be too highly appreciated. A late French traveller has styled the Legal profession the aristocracy of this country. It is undoubtedly the direct avenue to office and power. But although the law may have some advantages peculiar to itself, yet the main cause of its exaltation unquestionably is, that its members are *obliged* to be far better educated than a vast majority of the community.

If these views are correct, should we not make an effort at assimilating our profession to the others? The desired object may be readily attained by requiring the study of medicine to be determined upon at the age, say of sixteen, and allowing two years of this to be devoted to classical studies, or the higher branches of English studies equivalent to them. And in order that no complaint of surprise may be made, let it be enacted that the requisition shall not go into effect until the 1st of May, 1842; so that all who are about commencing the study may have due notice.

2. Age.—On this point the law is precise. No person can practise physic and surgery until he has arrived at the age of twenty-one; and it thus affects all, whether they receive licenses or diplomas. If the enactment be proper, and none will deny this, then it ought to be strictly enforced. And the only question is, how the age of the individual is to be ascertained. In cases where an applicant is known personally, as for example, when examined before a county medical society, there is little danger of deception in this respect. But when the candidate presents himself before the censors of the State Medical Society, or

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before any of the medical colleges, the fact has frequently to be learnt either from the statement of the individual himself, or the certificate of his relatives or preceptor. In either case fraud may be committed, not frequently perhaps, but it is charged to have been done. Apart from the immorality of such conduct, young men can scarcely be aware how little is gained by entering too early on the practice of the profession. No one ever regretted that he waited even years beyond his majority. Many have abundant cause of sorrow that they commenced too soon.

But if the present mode of proof be too loose—if it is not uniform—if it allows of collusion, certainly regulations can be made to obviate this, and none appears preferable to requiring an affidavit either from the individual applying, or from his parents, or his preceptor, stating that he has attained the necessary age. This is demanded from the student himself, when entering on the profession of law, and certainly therefore cannot be complained of, when extended to our own.

3. Term of Study.—Here also the law is precise, and its directions specific. The physician with whom a student commences his study shall file a certificate to that effect with the president of the county medical society—the president at the same time making the necessary deduction for time if required—and the term of study commences from the day of filing. Now if the teacher complies with this requisition, no difficulty can occur as to the *commencement* of the period of study. But in 1828, a case came up before the legislature, in which this had been neglected, and the student having studied his full term, prayed for relief. The committee of the senate, to whom the subject was referred, were of opinion that the omission should not deprive the student of his right to an examination; and they intimate that an affidavit stating the neglect, and that notwithstanding the other requirements of the law have been complied with, would be sufficient. (Transactions vol. 1, Appendix, p. 37).

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This construction has been readily adopted, and the consequence, it is believed, is a laxity in filing certificates. There are indeed several objections to the course now pursued. The president may reside in a remote part of the county—frequently he does not hold the office for more than a year, and possibly he may not be very careful in transferring these certificates to his successor: Would it not be preferable to have these certificates authenticated by the county clerk in each instance, and then filed in his office? Public and private convenience would thus doubtless be promoted; and as the county town is always much frequented, no difficulty or delay can occur in procuring copies. Having arranged as to the *commencement* of the term of study, the fact of its proper *completion* can readily be ascertained by a compliance with a resolution of this Society, passed February 3d, 1836, in the following words:

Resolved, That no medical student shall be received for examination by the censors of the state or county medical societies, until he shall have furnished certificates of having studied the full time prescribed by law, authenticated by the affidavit of his preceptor or preceptors, or in its absence, by his own affidavit.

4. ATTENDANCE ON A COURSE OF LECTURES.—At the date last named, the State Medical Society also passed the following resolution:

Resolved, That when a student has attended lectures he furnish a certificate from the college in which he has attended, that he has attended a full course, or if not a full course, the extent of his attendance; and that his attendance has been regular, and his conduct and character as a student proper and respectable. (Transactions, vol. 3d, Appendix, p. 12.)

The exhibition of this certificate should be required by the censors of both the state and the county medical societies, and it is to be hoped that all our medical colleges in this state will bestow such certificates on their students at

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the conclusion of each term. They answer a most useful purpose—promoting correctness of conduct and securing a regular attendance on the lectures. Every inducement that we can thus hold out to industry and morality will redound to the welfare of the profession.

5. Examination and Admission to Practice.—There are, we believe, 58 counties in the state. In upwards of forty, and probably nearly fifty of these, there are medical societies, each having boards of censors. There are four boards of censors attached to the State Medical Society, and four medical colleges with their professors authorised to examine. Thus there are at the very least, *fifty* bodies of men in the state authorised to permit an individual to practise physic and surgery. It will not be denied but that some diversity must exist in the character of the examinations, as tests of the qualifications of applicants, and such an opinion has led to many propositions for a change. The one that has most frequently been broached in this society, is that of taking away the power of licensing from county censors, and giving it exclusively to the state censors. There are several objections to such a proceeding. It may justly be apprehended that it would lead to the dissolution of many county medical societies, and thus gradually tend to the destruction of that system which, on the whole, has been of great benefit to the profession. Several of the societies promote the cause of medical knowledge, by appropriating the avails from examinations to the purchase of a library; and others use it for the unavoidable contingent expenses. But it is hardly necessary to discuss this point, as the Committee have reason to believe that the plan in question would meet with opposition quite sufficient to insure its rejection. They will, however, suggest as a substitute, the formation of district medical societies, corresponding in geographical extent to the existing senatorial districts. If a large board of censors were appointed for each of these, and required to meet, say quar-

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terly, at different places within the district for the examination of students, and if together with this, provision be made for dividing the examination fees among the county medical societies within the district, probably the mode of examining would be as unexceptionable as we can expect to make it. In order to satisfy any further objections, the election of censors might be committed to the physicians residing within the district, or to the nomination of the county societies. And should such a plan ever go into effect, it might be well to annex the provision now in force with the board of examiners in Upper Canada, viz: that every censor absent from his post at the appointed time, shall pay a fine.

The examination of students for the degree of Doctor of Medicine is a still more vexed point. It is a matter of regret that so many young men at the entrance of their professional life, are pressing for this distinction. The experience of many has shewn the value of practising for a few years with a license, and then returning with a store of self-acquired knowledge for the degree. But regret is all we can offer; it is in a measure caused by the rapid increase of our medical schools, but above all is it owing to our national characteristics. The *go-ahead* system enters into all the occupations of life, and the young man in and out of the professions is not satisfied until he has got as high at least as his neighbor.

But in view of the degree becoming depreciated by the rapid establishment of new medical schools, it may well become a question deserving serious consideration, whether at no distant period, the right of teaching and licensing should not be disjoined. In London, this experiment is now in progress; at the University of London, students from the University College, and King's College medical schools, from the London Hospital schools, and from several of the provincial medical colleges, are examined by persons appointed by the university, and this university has

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the power given to it by government of granting degrees; and this to the exclusion of the above teaching bodies. Time will show whether the result will be more beneficial than the old plan.

An incidental difficulty to the adoption of this suggestion is the fact that we are surrounded by institutions in other states, who might or might not follow it, and thus our students might be induced to desert our own colleges. This, however, will be of little importance if the increase of medical schools for the next five years should correspond to those just elapsed.

In concluding this review of the subject of medical education, the Committee are far from expecting that all or most of their ideas will meet with the general approbation of the society. They submit them for consideration, for reflection, for discussion. And they may at least be pardoned in the conclusion for a single remark; it is this: Before any alteration in the laws be applied for by this society, let it be well understood, that a majority of the profession acquiesce in its propriety. And when once we are satisfied of this, let us not be deterred by the usual cant of legislative opposition to a regular medical profession, from *requiring* its passage. This can at any time be effected by proper explanations to the members of both houses before they leave their homes; and it is in this way alone, that real improvements can be introduced. True there will always be some who are opposed to any thing that looks like improving other professions—some antipodes of a William Van Ness or a De Witt Clinton—some demagogue who comes into the house a flaming patriot, and leaves it a bank attorney. Such men have an instinctive dislike to the increase of knowledge and moral power in the medical profession. But if we ask only for what is right, and what can be shown will conduce to the general good, we need not fear the event.

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ART. XIII. *On Diseases of the Spinal Column, their Causes, Diagnosis, History and best mode of Treatment; being the* PRIZE DISSERTATION *for* 1840, *by* NATHAN S. DAVIS, M. D., *of Binghampton, Broome County, New-York.*

"L' ami de nature."

The human system, when fully developed and healthy in all its parts, is a complicated and most beautiful fabric; affording to the philosophic and contemplative mind, the most perfect illustration of the benevolence, wisdom and power of its great Architect. But in the same degree that the fabric is interesting and beautiful when in health, each part, as it were, imparting to and receiving life from every other, acting and reacting with the utmost harmony in one continuous chain, and yet each organ performing its own specific and independent functions with a precision and uniformity unequalled by the inventions of art; so when from any cause the functions of one or more organs become deranged, a link in the great chain is broken; the wheels of life move with an irregular and hesitating pace, and unless the well directed efforts of nature, or the skilful hand of art restores the deranged parts to their natural state, the beauty of the whole soon fades, and instead of symmetry we have deformity, instead of freshness and vigour, we behold the pallid cheek, and the slow and faltering step; and instead of activity and enjoyment we have nothing but pain, anguish and despair. But as every organ is liable to disease and derangement from a thousand causes, and the restorative efforts of nature are not always effectual or even salutary, it becomes the duty of every friend of humanity, and particularly of every practitioner of the healing art, to use every exertion to penetrate the darkest recesses of nature, to trace disease into its remotest ramifications, and follow it with the appropriate remedies.

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The subject contemplated in this essay is extensive and complicated; embracing a great variety of diseases, diversified alike in their origin, progress, and final results. And to do justice to all of them would require a volume, rather than the narrow limits of a written essay.

The extent of the *spinal column*, and the importance of its situation in relation to other parts of the system, renders a knowledge of its diseases of the highest importance to the practitioner of medicine. It is composed of a variety of structures, including bones, cartilages, ligaments, membranes, and the medulla spinalis. Hence the diseases naturally arrange themselves under two general heads, viz: those affecting the bones and their ligaments, and those of the spinal marrrow and its membranes.

The principal diseases treated of under the first head are, first, distortions; second, fractures, dislocations and concussions; and third, congental defects. The second comprehends inflammation of the spinal marrow and its membranes, and a certain undefined affection to which has been attributed almost every variety of symptoms in the whole catalogue of human suffering. Though the influence of the spinal marrow in producing sensation and motion, was known to Hippocrates and Galen, yet owing to the thick coat of muscular substance covering the spine, and the obscure physiology of the whole nervous system, the diseases of the spinal column were very little known until the time of Pott. However, notwithstanding Mr. Pott first directed the attention of the profession to this important branch of medical science, yet the treatment which he recommended was by no means original with himself. The salutary termination of abscesses near the spine had not escaped the notice of that great observer of nature, Hippocrates; and it was an observation of his that first led a physician of the interior of England to make use of *issues*, &c. in paralysis of the lower extremities. The success of this mode of teatment becoming

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known to Mr. Pott led immediately to new observations, and eventually to many and important improvements. But caries of the vertebræ was then considered as almost the only disease of the spine.

And it was not until 1817 that Dr. Macarthy of Dublin, directed the attention of the Royal Irish Academy to weakness of the muscles as a cause of spinal disease. This new field for observation has been occupied and improved by Shaw, Jarrold, Dods, Bampfield, and many others. In 1827 Dr. Harrison of London published his "Pathological and Practical Observations on Spinal Diseases;" in which he takes another view of the subject, and attributes many diseases of the spine, particularly curvatures and distortions, almost entirely to relaxation of the ligaments. Many other writers have within the last few years contributed to our knowledge of this class of diseases; and especially concerning what has been termed *spinal irritation*. And in adding one more to the list of essays which have already appeared, we shall endeavor to condense the various facts and observations developed by different authors; and thus present them to the medical reader in as convenient a form as possible, rather than attempt to broach any new theories, or indulge in any novel or visionary speculations of our own. Adopting nature as the basis of our nosology, we shall commence with diseases of the *bones*, and their appendages; and first of

Distortions. These comprehend every variety of curvature, posterior, anterior, lateral, and angular. But of these the posterior and lateral are by far the most frequent. By the angular curvature we mean a projection backwards of one or more spinous processes in such a manner as to form an angle. Curvatures and distortions occur generally during childhood and youth, except the gradual bending of age, which can hardly be called disease. However ,there are some cases which occur in middle or adult

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age, as proved by the case of Mrs. J*****, aged 50 years, which came under my own observation.

Causes. Almost all writers previous to 1820, enumerate scrofula, and caries as the only causes of spinal distortion. But Mr. Bampfield, in his celebrated prize essay, mentions among the remote causes, "scrofula, rachitis, syphilis, rheumatism, cerebral affections, habitual malpositions, especially during its growth, contusions, concussions, sprains of the vertebral joints, muscular debility, malformations, or irregular growth of bone, and old age."* And of these *muscular debility* is undoubtedly much the most frequent. It is a lamentable fact that a large proportion of the more fashionable classes, especially of the female sex, are more or less deformed. But it is not among these classes that scrofula, or rachitis, or syphilis most frequently occurs. What then is the cause of their so frequent deformity? It is simply this; no sooner does the little urchin make her entrance upon this stage of existtence, than *fashion*, that monarch which rules the world with more than autocratic tyranny, encases her in a tight dress, particularly about the waist, and confines her strictly within doors. And when she has arrived at sufficient age to skip about the streets, she is immediately *corsetted*, and the all important process commenced of *improving* nature in such a manner as to produce a "*small* waist, and *beautiful* form!" But the lungs being by this process too much compressed, the blood is not well oxygenated; hence the system becomes irritable, the child uneasy, and habitually inclines to one side: or the muscles of the spine being unduly compressed, are deprived of their natural action; hence they become weak and permit the shoulders to incline forwards. Then of course comes the "corset-board," to "brace them up," and make her "grow straight;" and the corset is drawn still closer. But the *board*, extending

*See Essay on curvatures and distortions of the spine, &c. by R. W. Bampfield.

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generally from the upper part of the sternum to the navel, when in an erect position, rests its lower end when in a sitting posture and a little inclined forwards, upon the ossa pubis. This therefore soon becomes a constant *point d' appui*, when in this position, to relieve the still more weakened dorsal muscles. Of course the bending or deformity increases more and more—pain in the side soon commences, accompanied by headaches, nervousness, weakness of the back, shortness of breath, &c. &c.—until in a word, the individual attains to that fashionable degree of "*very delicate health*" which is but too certainly the fate of very many. And when the spine is once turned from its natural position, the superincumbent weight of the body, not only presents the chief obstacle to its restoration, but it forms a constantly acting cause to increase the deformity. But as the constant bending forwards or laterally necessarily produces an equally constant pressure on the vertebræ in those directions, absorption of the bone soon takes place, and thus the deformity is made permanent. I am inclined to think that this cause of disease is much too little regarded even by the medical public. There are hundreds of young ladies (not to mention the gentlemen, with "corsets and tight-jackets,") among the more fashionable classes, who having received a slight curvature in the manner already indicated, excercise their never failing ingenuity to conceal it by the necessary padding and stuffing; but who nevertheless are almost constantly afflicted with pain in the side, weakness of the back, shortness of breath, nervousness, perhaps palpitations of the heart, and not unfrequently painful menstruation. These, however, the doctor ascribes to dyspepsia, or nervous derangement, and of course the *blue pill*, or *valerian* or both come in play. Notwithstanding, the patient continues to drag on a miserable existence; or perhaps she falls into the hands of another class of physicians, by whom the same is immediately and closely examined, and some parts

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being found tender to pressure, *spinal irritation* is pronounced as the fertile source of every unpleasant sensation. Then follows the free application of tartar emetic ointment with frictions over the tender parts of the spine. This soon produces a copious crop of pustules—the soreness of which compels the patient to lay aside her stays and corsets—the dorsal muscles are allowed free play—the chest expands—and the superincumbent weight of the body being also removed by much rest in the recumbent position, the spine gradually resumes its natural direction; and in a few months the patient's health is partially, and sometimes even wholly restored. And then the world is informed of another "fair case of *spinal irritation* cured by the application of *tartar emetic ointment!*"

I would not wish to be understood here, as insinuating that spinal irritation is a non entity; and much less that all the cases treated as such are instances of curvatures. But I am fully convinced, from repeated observation, that such is sometimes the case. Weakness of the dorsal muscles arising from any other cause, as hard lifting, or paralysis continuing for some time, will produce the same effect upon the spine.

Syphilis sometimes attacks the spine, producing caries of the vertebræ, as well as disease of the ligaments and intervertebral cartilages. But such instances are by no means frequent. Rickets also, from its tendency to keep all the bones in a pliable condition is not an unfrequent cause of spinal distortion. Contusions and concussions from falls are considered by the multitude as very fertile sources of this disease; so much so indeed that scarcely a mother having an affected child, but throws the blame on some careless nurse, who perhaps years before permitted the child to catch a fall. Without pretending wholly to deny the agency of these causes in producing the disease under consideration, I think the popular belief as to their frequency is a very great error. Scrofula can be considered only as a pre-disposing cause.

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Cerebral affections, which are enumerated by Mr. Bampfield among the remote causes, can be considered as such only by producing more or less complete paralysis of the muscles which assist in maintaining the spine in its normal position. Habitual malpositions are among the more frequent causes. Hence it is that we so often meet with distortions among the inmates of large manufacturing establishments, and other shops, mines, &c. where individuals are kept much in a bent position; this being in strict conformity to the general law, that long continued pressure upon whatever structure, invariably produces absorption. But the frequent occurrence of distortions among the inmates of such establishments, cannot be attributed solely to pressure; for their want of exercise in the open air, and too often also their want of wholesome diet, renders their system peculiarly predispoesd to diseases of this nature. With regard to *relaxation* of the *ligaments* as a cause of spinal distortion, much difference of opinion exists. Some like Dr. Harrison, of London* make it the grand cause of almost every variety of curvature, and even dislocation of the vertebræ; while many others with Mr. Bampfield wholly deny its agency in producing these diseases, if not its very existence.

Instead of weakness of the muscles being a direct cause of curvatures, those who maintain the agency of relaxation of the ligaments, assert that "the muscles destined to move the spine, are attached to the articulating fibrous structure, and not to the vertebræ which it encloses. This substance is stretched by them, and in weakly habits becomes preternaturally elongated, partly by the muscular force pulling it, and partly by the bones being pushed against it in the various turns and gesticulations of the body. As these parts gradually give way, the joints slowly enlarge and admit of greater motion. A slight *luxation* is first produced

*See Pathological and Practical Observations on Spinal Diseases, &c. by Edward Harrison, M. D., F. R. A. S., London, 1827.

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in one joint, afterwards in several." * They consider disease of the bones as comparatively rare. Admitting however, that "the luxated vertebræ have in some old cases been found united together, and consolidated into an irregular and indistinct mass." But they immediately add, that "we must not suffer ourselves to be deceived by them into a hasty belief that the bones are generally diseased." † Now that relaxation of the ligaments often does or indeed can take place sufficient to admit of luxations of the vertebræ, however slight, I think very few at all acquainted with the anatomy of the spine, will be inclined to admit. Indeed such is the peculiar situation of the articulating surfaces of the bones, to say nothing of the unyielding nature of the ligaments, that almost all surgeons, as well as anatomists, have been led to deny even the possibility of spinal luxations without more or less fracture.

Again, that relaxation of the ligaments, and luxation generally take place in spinal distortions without any absorption or disease of the vertebræ, is contradicted by some of the most prominent symptoms. For instance, if relaxation of some of the ligaments, simply, takes place to a sufficient extent to produce curvatures, without absorption or compression of parts, should we not expect an *elongation* of the spine, instead of the *shortening* which generally occurs? Hence I am inclined to think that relaxation has very little agency in producing spinal distortions.

The *proximate cause* may be summed up in a few words.

Says Mr. Bampfield "all permanent curvatures of the spine are caused by, or result from the bodies of the vertebræ and the intervertebral cartilages being reduced to a cuneiform shape, or entirely destroyed." This is undoubtedly true whether such condition be produced by pressure, absorption, softening, or caries, or all combined.

Symptoms. In the commencement of almost every va-

* Mayo. † See Harrison's work, quoted above.

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riety of curvature, more or less pain is felt in the affected part, particularly on making pressure over the spinous processes, or taking exercise; but rest for a few hours in the recumbent position almost always affords complete relief. It is generally described as a heavy aching sensation; accompanied by a sense of weakness and lassitude, which disincline to exertion, and of fatigue after it; and if the case be one of excurvation, the skin over the prominent vertebræ becomes tense and shining. If the patient has not learned to walk, he acquires that power slowly; is inactive and listless: and if he is made to sit much, the weight of the parts above the weakness increases the deformity. If the child has already began to walk he is soon fatigued; his step is slow, hesitating, and tottering; the upper part of the spine inclines forwards; he cannot direct his steps properly; he trips, or crosses his legs, stumbles, and falls. He dreads a repetition of the trial and clings to his nurse. And as the disease progresses, "the lower extremities gradually diminish in size, sensibility and temperature; slight spasms occur in the thighs, with a sense of coldness; palsy often succeeds, attended however, with some sensibility of the skin."—*Bampfield.*

If in the early stages of the disease; the patient be confined to the horizontal posture, no curvature ensues; and frequently the muscles and other parts are restored to their normal power, and a cure is effected. If this precaution is not taken, the curvature commences and continues to increase; the spines separate in consequence of the absorption of the horizontal surfaces of the bodies of the vertebræ; the bones of the thorax become displaced, and all the viscera more or less deranged. Thus far the symptoms detailed apply more properly to the disease as it occurs in children, and particularly to excurvation. But another variety which occurs in older persons, varies somewhat in its symptoms, and hence requires particular notice. It has been already alluded to in relating the

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cause of curvatures, as being frequently the result of improper modes of dress. It occurs in both sexes, but much more frequently in the female; and may be the result of weakness of the muscles, produced by whatever cause.

This variety generally commences previous to the age of puberty, or during the reception of education. It is at this period of life that many young ladies dressed in the manner already indicated, are confined for many hours of the day in a sitting posture, and within doors; which adds still another cause to those already mentioned. Perhaps this variety of disease cannot be better illustrated than by relating the following case: Miss P******, aged about 19 years, of sanguine temperament, and full habits, was generally healthy until within the last three years. She never *laced* herself at all until about the age of 15, and then about the ordinary tightness. At this time she was perfectly *straight*, healthy, and well formed. She was accustomed to work daily with her own hands, and continued to do so. But before the end of *eighteen months*, her health began to be impaired. Dull pains were experienced along the spine, especially after fatigue from exertion. There was also gradually increasing weakness of the back, and slight nervousness; soon her dress was observed to have a constant tendency to slip off from the left shoulder, and occasional sharp, darting pains were felt in the right side, with frequent head-ache. All these symptoms were attributed to derangement of the digestive organs, and of course no examination of the spine was made. But the sharp, darting pain in the side continued more frequent and severe, with an occasional dry cough, particularly when lying on the right side, which always brings on very acute pain about the region of the eighth and ninth ribs of the same side, but which ceases with the cough. The dull, heavy pain in the back also increases very much when in the upright position, but recumbency always affords relief; menstruation regular, but very pro-

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fuse, and often painful; headache often severe, and the whole system easily excited. The stethescope indicates slight hypertrophy of the heart, but no affection of the lungs.

On examination, the right shoulder was found about two inches lower than the left; the superior dorsal vertebræ were curved to the left, and the lower of the loins in the same degree to the right. The spinous processes in both places were very tender to pressure, and the intercostal spaces of the right side considerably contracted, while those of the left were widened in the same proportion. Here then is a lateral curvature of the spine sufficient to produce all the symptoms, except perhaps the headache, and profuse menstruation; and even these might grow out of the general derangement of the system. But I am inclined to think the former attributable to the slight hypertrophy of the heart.

Purgatives and the usual means for restoring the "*deranged digestive organs*," had been tried in vain. This case well illustrates the most frequent form of this complaint, but occasionally almost every variety of symptoms occur. However a careful examination of the spine will always determine how far *it* is concerned in producing them. This I fear is too much neglected. For while the head, thorax and abdomen are daily examined with the greatest care, and every spot of tenderness pointed out, how very seldom do we see in ordinary practice, the slightest attention paid to the whole course of the spinal column; and this too, in the most delicate and nervous individuals. I am no advocate of that modern doctrine which attributes almost every thing to what is termed "spinal irritation." But in endeavoring to ferret out the causes of disease, I would have no important part of the system unexamined; particularly in those chronic, nervous, and sometimes anomalous affections, whose continuance sets at defiance the skill of the physician, too often renders life itself a bur-

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then; and affords the great source of employment to that innumerable army of quacks which throng our country.

ATTENDANT AFFECTIONS OF OTHER PARTS OF THE SYSTEM.

Of the Bones of the Chest and Spine.—No considerable curvature of the spine can exist, without more or less change in the position of the ribs and sternum, and consequently derangement of the contained viscera. If the deformity be one of excurvation, which generally takes place about the fourth dorsal vertebræ; from the weight of the head at the top, and that of the thoracic viscera at the upper part, the perpendicular and lateral diameters of the thorax become shortened, while the sternum protrudes forwards, making the antero-posterior diameter considerably longer. Sometimes one or more of the ribs become loose, and even wholly separated from the vertebræ. Again if the curvature be lateral, it generally occurs about the fifth or sixth dorsal vertebræ, and from the same causes mentioned in excurvation. Here the sternum is much less projecting, but the ribs approximate to each other on the side opposite the curvature, and *vice versa.* Hence the natural action of the intercostal muscles is prevented, and some internal organ more or less displaced.

Of the Muscles and Internal Viscera.—In most cases of curvature the dorsal muscles are not only weakened, but more or less elongated; while their bulk and power constantly diminish until they become wholly unable to raise the spine into an erect position. "There is something peculiar," says a valuable writer, "in many cases of temporary curvature, arising from the inadequate power of the dorsal muscles to sustain the spine; for if the patients attempt to assume the erect attitude, the whole column is bent from the straight line, into the shape of a half bent hoop; just such a one as the back would take when any one voluntarily curves it to a great extent, by bending forward and projecting the lower dorsal vertebræ back-

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wards, a posture in which all the vertebræ would be more or less implicated in the curvature."—*Bampfield.* This fact I have seen well illustrated within the last few weeks, in the case of a young lady who a few months since, received a very severe blow on the right lumbar region, close to the spine. Severe internal inflammation followed, and such was the weakness of the injured dorsal muscles, that for some time after recovery commenced, every attempt to raise herself into an upright position, only served to bend the body very much forward. The change in the position of the ribs already mentioned, changes also the course of the fibres of the intercostal muscles, and consequently directly lessens their power to elevate the ribs and expand the chest; hence the lungs are inadequately expanded and the blood not fully oxydized. Curvatures, and especially excurvations approximate the lower edges of the ribs and sternum, to the pubes; and hence the power of the abdominal muscles becomes much enfeebled, and their agency in respiration, and assistance in circulating the blood and expelling the fœces also diminishes.

But the projection of the sternum and the consequent descent of the diaphragm, pressing the viscera down with it, generally keep up some contraction of these muscles. Palsy of the abdominal muscles is also an occasional concomitant affliction in spinal distortions; and in one case, it is said, scarcely a vestige of them remained. The projection of the sternum and consequent narrowing of the lateral diameter of the thorax, deranges the action of the diaphragm, putting it upon the stretch antero-posteriorly, while it is relaxed from side to side.

From all these causes it will be readily perceived that the thorax cannot be fully dilated in any of its dimensions; consequently the contained viscera are more or less compressed—the lungs cannot fully expand—the blood does not undergo the necessary changes of respiration—frequent dyspnœa ensues—and sometimes palpitations, asthma, and congestion of the lungs. The muscles of the ex-

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tremities are also sometimes affected with numbness, spasms, weakness, or even total paralysis; but the degree of these affections does not seem to bear any proportion to the degree of spinal disease. The power of the sphincters of the bladder and rectum have also been found in some cases much diminished. The larger blood vessels partake of the general derangement of all the viscera; and sometimes the liver is found to be pressed down below the edges of the false ribs, simulating chronic affections of that organ. Indigestion and costiveness are of frequent occurrence; the urine is sometimes cloudy, indicating affections of the bladder or kidneys, and depositing occasionally both the white, and lateritious sediment. The system is in many cases exceedingly irritable, and easily thrown into the greatest excitement. In a word, the whole system becomes deranged and subject to a great variety of symptoms too numerous to mention.

Diagnosis.—Curvatures of the spine are generally very easy of detection, especially after having advanced to a considerable degree; but it is all important to a successful mode of treatment, that they be distinguished in their incipient stage. What symptoms then, should awaken our suspicion and lead to a close examination of the spinal column? A peculiar sense of weakness, with or without pain, and generally accompanied with tenderness to pressure on the spinous processes, is perhaps the earliest symptom indicative of this species of spinal affection. This together with a "corded tightness or sense of constriction across the epigastrium," or a frequent, sharp pain in the side, seeming to follow the course of the ribs, should always lead us to a careful examination of the whole course of the spine. And more especially, if the above mentioned symptoms are accompanied or followed by irregular nervous actions, convulsions, diminished power of the muscles of the extremities, a sense of weariness, or a constant habit of stooping forward, or leaning to one side. Another very

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important object in the diagnosis of curvatures, is to distinguish between cases attended with caries or intervertebral ulceration, and those proceeding from simple absorption without caries. This is often a matter of much difficulty.

However, where caries exists, the curvature is generally preceded, and accompanied by more pain, slight attacks of fever, constitutional disturbance, and more decisive marks of inflammation. The general health declines rapidly; "the patient becomes emaciated, irritable, hectic, and matter is formed near the vertebræ, and the patient generally dies." Whereas in curvatures without caries there is very little accompanying pain, unless pressure is made over the affected vertebræ? and the general health is much less impaired. Paraplegia sometimes occurs, accompanied by general emaciation and disorder of the kidneys. But the countenance seems more indicative of languor and debility than pain.

Prognosis.—This must depend very much upon the cause of the curvature, and constitution of the patient. If the disease proceeds from caries, or ulcerative destruction of the intervertebral cartilages, the prognosis should be unfavorable; and the same is the case if the caries be connected with an external abscess. "In such cases the digestive functions become impaired and deranged; the patient becomes gradually emaciated, he is affected with hectic, and is generally carried off by diarrhœa."* However, a few cases of recovery may be found on record. "Curvatures, attended with frequent headaches, or constant cephalalgia are dangerous, and with hectic fever are fatal.† So also are those caused by the constant pressure of aneurisms. Cases accompanied by paralysis of the lower extremities are generally dangerous, though many such recover.

*"Essay on Curvatures and Diseases of the Spine, &c.;" by R. W. Bampfield.

†Ibid.

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Great displacement of any of the thoracic, or abdominal viscera, or the frequent occurrence of asthma, should also be considered unfavorable. In curvatures, however great, caused by progressive absorption of the bodies of the vertebræ, and unaccompanied by any of the preceding unfavorable symptoms, the prognosis should be favorable. If soon after the appropriate treatment has been commenced, the pain in the back ceases, the digestive functions improve, the patient becomes more cheerful, the tightness of the epigastrium is diminished, and the muscular power of the extremities restored, a speedy recovery may be predicted. However where the bodies of the vertebræ have been destroyed to a considerable extent, and anchylosis taken place, more or less deformity generally remains.

PATHOLOGY.—In almost all permanent curvatures of the spine, the bodies of the vertebræ are destroyed in a greater or less degree, either by progressive absorption or ulceration, while the bony bridge and processes generally remain unaffected. There are, however, a few cases in which the absorption or ulceration is confined to the intervertebral cartilages. It appears to be a universal law of the animal economy, that pressure continued for any considerable time upon any one part produces more or less rapid absorption.

Hence when from any cause, unnatural pressure is made upon the horizontal surfaces of the vertebræ, absorption commences, and may progress without the formation of matter until the bodies of several vertebræ have been entirely destroyed. And cases are recorded in which all the vertebræ were destroyed, their processes alone remaining.*

Caries of the vertebræ generally occur in scrofulous subjects, and is the result of slow scrofulous inflammation. In such cases matter is formed, producing extensive abscesses, which most frequently appear in the groin, or about

*Bampfield.

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the lumbar region. The ligaments are also frequently found affected, often inflamed; and indeed sometimes, though rarely, they constitute the primary seat of disease.

The posterior ones though often put upon the stretch are much less frequently found affected than the anterior; dissection having frequently exhibited the latter in an inflamed, thickened, or ossified state; and sometimes covered with fat. When curvatures occur in scrofulous constitutions, the spinal marrow is sometimes more or less compressed by a gradual swelling of the intervertebral cartilages; thus pushing backward the common vertebral ligament. But though direct pressure upon the spinal cord cannot be considered of frequent occurrence, in any variety of curvature, yet it is certain that many of the symptoms which supervene during the progress of these affections, must be attributed to the derangement of the spinal marrow, or the nerves proceeding therefrom. Dissections have sometimes shown the trunk of the great sympathetic displaced, or shortened, as well as the œsophagus, and many of the larger blood-vessels.

Complete interruption or destruction of a part of the medulla spinalis very seldom occurs. Dr. Rullier has lately reported a case of the kind in Magendie's Journal, in which "the spinal marrow was converted into a fluid state along the two inferior thirds of the cervical portion, and the upper third of the dorsal."* Dr. Ollivier has also related two cases; the one a child of eight or nine, in which there was complete deficiency of the medulla from the ninth dorsal to the first lumbar vertebræ; the other, a girl of thirteen years, in whom the nervous pulp of the lower part of the dorsal region was converted into a pultaceous matter, and deficient for four or five lines. In both of these cases the vertebræ were affected with caries; but what is very singular, in neither of them, nor the one re-

*Obs. V., p. 143, and Obs. 49, p. 339. De la Moelle Epiniere et de ses Maladies, par C. P. Ollivier, D'Angiers, Paris, 1824.

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lated by Dr. Rullier was there paralysis of the lower extremities.

Gangrene of the intervertebral cartilages has been detected in some cases. So also has ulceration of the upper surface of the diaphragm from the presence of pus in internal abscesses. And Mr. Howship relates a case in which scarcely a vestige of the abdominal muscles remained.

Treatment.—Under this head, did the limits of this essay permit, we might enumerate almost every mode of treatment, and the application of almost every variety of machinery which the ingenuity of man has been able to invent; but we shall endeavor in the present instance to sift the whole, and retain what may be considered useful, rather than attempt to name all the various modes, much less to give a detailed account of them. The general indications applicable to the treatment of most cases of spinal curvatures are, first, to remove all pressure from the vertebral column. Second, to secure the bodies of the vertebræ from the irritation of motion in the erect attitude. Third, to bring the vertebral column back to a true spinal line. And fourth, to remove all local symptoms of disease and improve the general health. The means for fulfilling the two first indications, are generally one and the same. And though the ingenuity of man has been taxed to the utmost in the invention of machinery, such as inclined planes, spinal supporters, collars, &c., in order to fulfil these indications, and still retain the patient in an inclined, sitting, or erect attitude; yet simple rest in a *completely horizontal* position accomplishes the object more perfectly perhaps, than any one or all of them combined. I shall not here trespass upon either the time or patience of my readers by attempting to give even a brief description of the various instruments which have been invented or modified by such men as Le Vacher, Chessher, Jones, Ward, Shaw, and many others. They are all well known to the medical public, and most of them described in almost every book treating of spinal distortions. But I am inclined to

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think they are all subject to three great and insuperable objections. The first is, that they very seldom completely remove all pressure from the diseased vertebræ; or at all times wholly prevent motion in the erect attitude. Hence they imperfectly accomplish the object for which they were designed. The second objection is, that every variety which has yet been invented, and which tends in any considerable degree to relieve the pressure, always keeps up a constant, and more or less forcible extension of the spine; which in cases attended with scrofulous or simple inflammation of the ligaments or cartilages, can hardly fail to prove injurious. And when there is considerable destruction of parts by progressive absorption or otherwise, forcible extension even by the windlass, and much more by "suspension by the head," would greatly endanger fracture of the remaining processes. All stretching of the spine in young subjects, Mr. Bampfield considers as dangerous; and, continues he," instruments for stretching and supporting the vertebral column, should not be employed during scrofulous or simple inflammation, or caries, or vertebral destruction by absorption; neither should they be resorted to during the regeneration of bone."*

But the third, and perhaps greater objection than either of the preceding is, that with the exception of the inclined plane, all these contrivances entirely prevent exercise of the muscles of the spine; and thus not only wholly obstruct the important object of strengthening those organs, but greatly increase their debility. Many writers, however, alledge that the natural resistance of the muscles to the extension tends very much to increase their power. This is true when the extension is continued for a very limited time only. But it is not true when the extension is kept up for a month, a week, a day, or even a single hour. Is it not a fact long known, and fully appreciated in surgery, that unremitting extension is the surest mode

*See Review of Bampfield in *Medical Recorder* Vol. 8, No 2, April 1825, page 354.

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of overcoming muscular power? And do we not see the fact daily exemplified in the reduction of every difficult dislocation? Many other objections to these modes of removing the pressure from the affected vertebræ, of scarcely less importance might be mentioned; such as the pressure of the spinal supporter upon the pelvis below, and the occiput and inferior maxillary bones above, generally causing absorption of the soft parts, and sometimes ulceration and even sloughing. Again every kind of apparatus which makes the pelvis a *point d' appui* should be carefully avoided in children affected with rickets, or any other disease in which softening of the bones takes place, as the constant or even frequent pressure of such apparatus upon the yielding bones, could hardly fail to produce more or less deformity of the pelvis, which it is of the highest importance to prevent, especially in the female sex. On the other hand, the principal objection urged against the horizontal position, is the length of time necessary to confine the patient; and its consequent injurious effect upon the system. These effects have been set forth in glowing and eloquent colours by Dr. Dods, and a few others. But the unerring voice of experience has long since abundantly proved all these fears and forebodings of evil without foundation. And instead of the general health suffering by the confinement, very few cases indeed occur which do not undergo a great and very speedy improvement. The pain in the back ceases, the secretions become more natural, the tightness of the epigastrium, or pain in the side diminishes &c. &c. A moderately firm mattrass is perhaps the best material for a couch upon which to confine the patient. Some always place the patient in the dorsal position, while others are equally strenuous in favor of the facial; whereas the particular position which the patient may assume, whether dorsal, facial, or upon one side, should always depend upon the particular situation and variety of the curvnture. Thus in excurvations if the deformity exists in the lumbar or dorsal vertebræ, the patient should be uni-

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formly placed in the facial position, (i. e. upon the abdomen with the face directly downward.)

The head in this position is allowed free motion, and consequently exercises more or less the dorsal muscles. The muscles of the loins are also frequently called into play, and thus assist in diminishing the curvature. Pressure is also made to a greater or less degree upon the sternum, which prevents the projection of that bone, and tends strongly to reduce it when the deformity already exists. Again, all local applications to the spine, as issues, setons, blisters, frictions, and pressure on the projecting vertebræ, can be managed with the greatest facility. On the contrary, if the patient was placed in the dorsal position none of these applications could be made without subjecting him to the inconvenience of changing his position. The spine in its natural line inclines its lower dorsal and lumbar vertebræ inwards to support the viscera; but if the patient is placed on the back, particularly if the thighs are flexed, these vertebræ are projected directly outwards. Hence if this part of the spine should be the seat of an excurvation, that position would tend directly to increase the protrusion. And in cases of extensive curvature, and particularly of angular projection, the dorsal position is very uncomfortable, as the constant pressure upon the projecting vertebræ sometimes causes great pain and even excoriation. Moreover when the body is fixed on the back, much less exercise of the dorsal muscles can be allowed, and consequently this powerful means of restoring to them strength and vigor is almost wholly lost. Among the advantages of the facial position in excurvation, Mr. Bampfield mentions the facility with which pus, and other fœtid matter, the result of caries &c. can escape along the anterior surface of the vertebræ instead of lodging on the theca vertebralis, or insinuating itself into the course of the medulla spinalis. He also prefers a soft feather bed to any other in this position.* If a mattress be used it should be sufficiently soft

*Bampfield on Spinal Disease, in the Medical Recorder, Vol. 8, p. 335.

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to yield to the pressure of the abdomen. The arms and legs can be used with equal freedom in this, as in the dorsal position.

But in cases where the lower cervical vertebræ form a part of the excurvation, it will generally be found that, the dorsal vertebræ, making up the lower part of the curvature, become reduced by the facial position much sooner than the part formed by the cervical vertebræ; hence in such cases this position should be maintained about one half of the time judged requisite to effect a cure, and then changed to the dorsal. And in all cases after the cure has been nearly completed, the patient should be allowed to change frequently from one position to another.

When excurvation, during its progress, becomes complicated with lateral curvature, as is sometimes the case, no particular attention needs be paid to the latter, as the appropriate means for destroying the former, generally at the same time relieve the latter. In lateral curvatures uncomplicated with excurvation, much must always depend upon the particular seat and extent of the deformity; generally however, the pressure upon the diseased parts is relieved equally well by either the dorsal or facial positions. It should be remarked, perhaps, that in speaking of the facial, dorsal, or lateral positions, the patient is supposed always to be placed horizontally.

In cases of *incurvation* which are comparatively rare, Mr. Bampfield prefers the dorsal horizontal position.

For fulfilling the third indication, viz: to restore the vertebral column to its true spinal line, a variety of means have been recommended, such as stretching the spine, pressure upon the protruded vertebræ, frictions, compressions, &c. In young subjects, while the disease is yet in its earlier stages, simple rest in a horizontal position, continued from three to fifteen months, will in a majority of cases effect a cure, especially when the deformity arises from progressive absorption.

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Mr. Baynton and his followers have pushed this mode much farther; discarding all local applications, and trusting solely to the horizontal position even in the worst cases. It cannot be doubted however, but that this position may be much aided by judicious local applications, and sometimes by more or less extension of the spine. It is a curious fact that notwithstanding relaxation of the ligaments as a cause of spinal curvature, is still a mooted point in pathology; many believing it a prolific source of such disorders, yet almost all agree in recommending more or less extension of the spinal column as among the chief curative means. The advocates of relaxation being often also among the most strenuous for extension. * Indeed so far has this stretching of the spine been carried, that in many cases the whole column has been lengthened several inches; and kept so for days, and even weeks in succession. As soon however, as the extending force is removed, the spine returns to its former position, with no other result than a greatly increased weakness of the muscles and other parts which assist in sustaining it. Hence this mode of keeping up a constant and forcible extension, is not only useless but absolutely injurious. For the power of the dorsal muscles, which are the chief supporters of the spinal column, is not more certainly destroyed by total inactivity, than by constant, long continued exertion. Extension then, to be beneficial, should be continued not more than fifteen or twenty minutes at one time, or forty minutes at longest; and generally accompanied by firm pressure on the most prominent vertebræ. In this manner the spine may be slightly lengthened, allowing the protruded vertebræ to be pressed gradually back towards their normal position, at each repetition of the extension; while the power of the muscles is never overcome, but rather in-

* See Pathological and Practical Observations on Spinal Diseases, by E. Harrison; Reviewed in the American Medical Recorder, Vol. 13, No. 41, 1838, page 140.

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creased by the short and repeated exercise. Extension may be effected in various ways; as by fixing the head or shoulders and making extension at the feet by one or two assistants; or by appending a weight to the feet and directing the cord over a pulley; or by the windlass, as described in almost every work on this subject. But even temporary stretching of the spine, should never be resorted to in very young children, or when the bodies of the vertebræ have been extensively destroyed, leaving only a brittle arch of bone behind. Neither should extension be made during the regeneration of new bone, or after anchylosis has taken place. Pressure upon the protruded vertebræ, during the process of extension, should be made with the hand, covered with a glove or compress. When the spinous processes are very tender to the touch, the pressure may be made over the transverse processes on each side. And after the extension has ceased, the pressure may be kept up by applying a compress to the parts, and passing a broad bandage snugly around the thorax. If the curvature is lateral, the compress may sometimes be applied, with much benefit, to the most prominent ribs, on the side of the curve.

We come now to the fourth indication of cure, viz: to remove local disorders, and improve the general health.

The principal local disorders, are weakness of the muscles, ulceration or absorption of the bodies of the vertebræ, and intervertebral substance, shortness of breath, tightness of the epigastrium, sometimes a dry troublesome cough, and not unfrequently paralysis of the lower extremities. Many of these symptoms, as the tightness of the epigastrium, the dyspnœa, the cough, together with the pain in the back or side, generally subside by simply maintaining the horizontal position.

This position is often sufficient also, as has been already remarked, to arrest the destruction of the vertebræ, and bring about a regeneration of new bone. But when ca-

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ries or ulceration exist with a scrofulous habit, some auxiliary means are generally required.

It is in these cases that setons, issues, and other modes of counter-irritation have gained their chief reputation; and it is to these alone that they are applicable. It is the slow ulcerative inflammation of scrofula which produces caries, and destruction of the vertebræ, and which these sources of long continued external irritation are calculated to remove. Hence, setons, and issues are generally to be preferred. Sometimes however, pustulation with tartar emetic ointment may be kept up for a considerable length of time, and often proves very beneficial. But notwithstanding every variety of treatment, scrofulous inflammation of the spine often produces large and extensive abscesses, which gradually make their way externally, and appear sometimes in the groin, or down the thighs; at others, in the lumbar region or over the crest of the ilium, &c., and sooner or later terminate in hectic fever, and death.

When these abscesses make their appearance externally their true cause is frequently misunderstood, and consequently a very erroneous treatment adopted. A striking case of this kind fell under my own observation about one year since. The patient, a young man aged about 25 years, had complained of much pain and weakness of the back for many months, but at no time had been confined wholly to his bed. At length a soft, fluctuating tumour of moderate size appeared in the left inguinal region, a little above Poupart's ligament. This, an ignorant pretender to medicine declared to be a *hernia*, and even applied a truss. But the patient's health rapidly declining, and the tumor increasing considerably in size, a physician of more science but entertaining scarcely a better idea concerning the true nature of the disease, was called, and finding evident signs of matter, immediately plunges in the lancet and discharged a considerable quantity of rather fœtid pus. After this the patient continued in a very feeble condition for many

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months; more or less matter continued to be discharged from the opening; and at length one or two other openings formed below Poupart's ligament, and also discharged considerable matter. His general health became slightly improved, and he was able for a very short time to leave the house. But his constitution soon again sunk under the constant irritation, and he became closely confined to his bed. At this time I was called to visit the patient, and found him with a haggard countenance, much emaciation, quick pulse, much pain in the loins, inability to raise himself into an erect position, hectic fever, and general debility. The openings below Poupart's ligament continued to discharge some matter containing flocculi, but they were too tortuous to admit the introduction of a probe to any considerable distance. By a course of treatment the hectic fever diminished, and his general health was somewhat improved; but he at length sunk again under the continued irritation, and died after several months of suffering, having at times discharged considerable matter per anum. Being at a considerable distance I did not see him during the last two months of his life, and no post mortem examination was allowed; but I think no one will doubt but that the disease originated in caries of the lumbar, and perhaps lower dorsal vertebræ. Paralysis of the lower extremities, as also the occasional paralysis of the sphincters of the anus and bladder, and some other muscles is generally removed by the same means that tend to remove the disease of the spine. Stimulating frictions to the paralyzed parts, may however sometimes prove beneficial.

To increase the power of the dorsal muscles and remove the weakness of the back, frictions and exercise seem to be the only remedies. The first may be applied with the dry hand, a flesh brush with a little flour interposed to prevent abrasion; or with stimulating liniments. While the patient is confined to the horizontal position, exercise of the dorsal muscles must necessarily be rather limited. But

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when the cure has become so nearly complete that the patient is allowed to leave his couch at intervals, various modes of exercise have been recommended; such as playing at battledore, balancing light weights upon the head &c. The exercise should be very gentle at first, and the horizontal position always resumed for a short period after each performance. Indeed where caries has existed, or anchylosis taken place, the exercise should be commenced on the inclined plane; and the erect position attained very gradually. This may be done very effectually by erecting a standard at the head of the inclined plane; fixing a pully at the top, and passing a cord over it with a weight attached to one end, and permitting the patient to pull at the other, gently at first, and with the plane but little raised above the horizontal line. Children may be induced to exercise their limbs, and to some extent also their dorsal muscles by placing their playthings at such distances as to cause them to reach in almost every direction to obtain them.

Medical Treatment.—The medical treatment recommended in spinal distortions has been confined almost entirely to to the palliation of symptoms, and the improvement of the general health. In the early stage of this disease arising from muscular debility, especially in children, chalybeates and mild laxatives will generally afford all the advantages to be derived from medicine. In this stage too, if there exists no predisposition to pulmonic complaints, cold bathing, or sponging the surface with cold water will often prove beneficial. A plain, simple, yet nourishing diet should be enjoined, and given only at regular intervals. To obviate the symptoms of dyspepsia, costiveness, &c., which frequentiy occurs during the progress of the complaint, the compound rhubarb pill, containing a small quantity of blue mass, together with chalybeates, or mild tonic bitters, and occasionally alkalies, will be found exceedingly useful. The peculiar pain of the epigastrium,

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nervous irritation, spasms, &c. are generally soon relieved by the foregoing means, coupled with a strict adherence to the horizontal posture. Sometimes, however, anodynes are required for their relief; and, says Mr. Bampfield, "I have known this pain and screaming in sleep, removed by occasional purgatives."

The various pulmonic affections which occasionally arise, must be met with the same means required for the removal of these complaints in ordinary cases. "Asthma sometimes induces general dropsy in a short time, with purple colored lips, cheeks, feet, &c., and is frequently fatal to those whose spines and chests are much distorted." But the observance of the facial horizontal position generally diminishes the frequency of the asthmatic paroxysms and combined with the use of the bandage around the thorax, has the most decided good effect in relieving harrassing dyspnœa. The occurrence of scrofula must be combatted by the remedies ordinarily made use of in the various stages of that disease. If the urine becomes scanty and turbid, indicating derangement of the kidneys, an exhibition of magnesia, carb. soda, and gentle aperients will generally soon correct the morbid secretions, and tend to preserve the general health. It is impossible within the limits of a single essay to enumerate every variety of symptoms which may occur during these tedious and often long continued diseases. Neither is it necessary, as the sound and judicious practitioner will ever be ready to explain them on correct principles, and apply the appropriate remedies. And though you "bray" the ignorant, self-confident charlatan in a "mortar with a pestle," yet will he never be the wiser.

PROPHYLAXIS.—It is an old and true maxim, that prevention is better than cure. And in no case is it more true than in reference to curvatures, and distortions of the spine; diseases which from their very nature are always more or less difficult, and often indeed impossible to cure.

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As has been already remarked, the foundation of curvatures, and other diseases of the spine, is generally laid in childhood, and often in infancy. The different parents in a neighborhood often vie with each other in learning their children to walk at a very early age. Mr. A., for instance, wishes his child to "run alone" as soon as Mr. B's, without any reference to their comparative health and strength. Hence the nurse is directed to exercise it frequently on its feet. Now if this child happens to be of puny health, and its muscular system but little developed; or if, as is sometimes the case, it be uncommonly fat and heavy, the consequences are that the legs often bend under the superincumbent weight, the bodies of the vertebræ and intervertebral cartilages are subject to unnatural pressure, and the child soon becomes peevish, feeble, and listless. Hence, not only is the power of walking acquired more slowly, but after it has been obtained, the step is hesitating, feeble and tottering, and the compressed vertebræ soon become more or less absorbed. And more especially do these evils result if the little sufferer chance to be rickety, or otherwise predisposed to diseases of the bones. Whenever, therefore, such cases occur, instead of entertaining a morbid anxiety that the child shall learn to walk early, we should place it on a large and firm mattrass, and permit it to creep and tumble about without control; and endeavour to strengthen the muscular system, and the constitution generally by cold bathing or sponging, chalybeates, &c. Exercise in the erect position should be very gradually and cautiously used. Another cause of curvatures is the keeping of children in school, or other places many hours of the day, on seats with no support for the back. The child soon becomes weary of maintaining itself perfectly erect, and hence begins habitually to lean forwards or latterly. The same effect is produced when individuals, from their employment, are kept much in a bent position. The deformity first becomes habitual, and then permanent. It need hardly be observed, that in almost all these cases a

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timely removal of the cause would prevent any permanent injury. But to remedy the deformity where bending of the spine has become habitual, and thus prevent the formation of a permanent curvature, many ingenious methods have been devised. We shall at present mention but two. The first and most effectual aside from the removal of the cause, is the balancing of a small weight upon the head. This cannot be done without bringing all the dorsal muscles into play, and maintaining the spine perfectly erect. Hence it is equally adapted to all cases, in whatever direction the bending may have taken place. And when frequently resorted to before the curve becomes permanent, or disease of the vertebræ exists, it will seldom fail to effect a perfect cure. It is an interesting fact that among those people, who are accustomed to carrying heavy burdens on their heads, spinal distortions are very seldom if ever found. The second method is that recommended by Mr. Shaw, and best adapted to bending forwards or backwards, but may also sometimes become useful in lateral malpositions. The apparatus consists of an upright post, from four to six feet in height, containing a pully near the top, over which a cord passes with a weight attached to one end, and the other so fixed as to be easily fastened to a band passing around the head. About twelve or sixteen inches below the pully, one end of a lever is admitted in such a manner as to permit the opposite end to raise and fall with ease. To the free end of this lever, the cord and weight are both attached, and move up and down with it. The following figure will perhaps convey a better idea of the apparatus than words can express.

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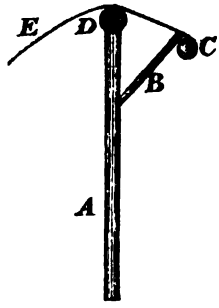

A. is the upright post.
B. the lever.
C. the weight.
D. the pulley.
E. the cord, leading from the weight to the head.

Now it will be readily perceived that if the free end of the cord should be attached to the head in front, in such a manner as to bring the lever to a perpendicular position, when the patient was perfectly erect, very little force would be exerted by the weight; but as the patient bends forwards the lever falls from the perpendicular, and the force exerted by the weight is greatly increased; and consequently becomes very uncomfortable. Hence the patient almost involuntarily resumes the erect position. This mode is well adapted to young ladies who are in the habit of sitting much in a bent position. If the stooping is forwards, the cord should be attached to the front part of the head, and vice versa.

CHAPTER II.

INFLAMMATION OF THE SPINAL MARROW, AND ITS MEMBRANES.

Following out the nosological arrangement mentioned in the commencement of this essay, this and the succeeding chapter would be occupied by a consideration of fractures, dislocations and concussions, and congenital defects. But as all these are either accidents, or defective formations, rather than diseases, and fall more particularly within the province of the surgeon, I have thought it best to omit them entirely. I do this the more readily also, as my

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own experience has afforded no facts of importance in addition to the very many already published by eminent surgeons, and to be found in almost every work on that subject. Hence we shall proceed directly to the consideration of inflammation of the spinal marrow, and its appendages. The extensive influence which this organ exerts over many parts of the system, by its connection with the nerves of sensation and motion, has of late years attracted a large share of the attention of pathologists. But the depth of its situation, and the difficulty of making accurate post mortem examinations, except in large and well managed hospitals, still leave the answers to many interesting questions in doubt. This together with the contradictory statements made by eminent pathologists, concerning many of the most important points in the pathology of spinal diseases, serves rather to bewilder than enlighten the sincere enquirer after truth. Indeed there is scarcely a disease to which the human system is liable, that has not by some writer been attributed to inflammation or irritation of the medulla spinalis.

Thus neither Broussais nor his opponents are more fully convinced of the truth of their respective theories than was Dr. Saunders, of Edinburgh, that fevers, gout, &c. are caused by diseases of the spinal marrow. Such is the proneness of the human mind to magnify its own supposed discoveries, that a new theory, once adopted, is generally applied to every variety of disease and facts, symptoms, and even post mortem appearances, are made to confirm the doctrine. Hence it is, that spinal arachnitis was always observed in fatal cases of tetanus by Duchatelet, Martinet, Larrey, &c., while Sir Benj. Brodie, and some others could never discover any morbid changes in these structures, except perhaps what took place in articulo mortis. Hydrophobia also, with all the varying forms of hysteria, neuralgia, angina pectoris, &c., have been re-

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ferred by different writers to disease within the spinal canal.

That spinal affections are often present in these diseases, and require much of the practitioner's attention during their treatment, it would be folly to deny. And that inflammation of more or less intensity, existing in the medulla spinalis, its membranes, or the roots of the spinal nerves, constitutes the true pathology of *tetanus*, cannot admit of a rational doubt. This has been a question of the utmost practical importance; but the extensive researches of such men as Walker, Saunders, Abercrombie, Prof. Frank, Brera, Recamier, Broussais, Larrey, Magendie, Duchatelet, Martinet, Reid, Kennedy, and some others, must be considered as decisive on this point. And considering the present physiology of the nervous system, we should be led to infer *a priori*, that more or less morbid excitement must exist at the origin of the nerves of voluntary motion, in all forms of general convulsions. This excitement may be idiopathic as in tetanus, but in a large majority of cases, it is only symptomatic of disease in some other organ.

Symptoms—The most prominent symptoms indicative of inflammation in the spinal cord are, according to Parent Duchatelet, Olivier and Abercrombie, generally more or less pain extending along the spine—tetanic contraction of the voluntary muscles, generally commencing with those on the posterior part of the neck, and along the back, producing sometimes complete opisthatonos—rigidity of the muscles of the extremities, and sometimes paralysis, pulse quick, countenance expressive of great anxiety, restlessness, occasional delirium, and the patient dying comatose. These last symptoms, however, can only occur by an extension of the disease to the brain. The above is a very general outline of the most common course of symptoms, but it is evident that the greatest variety will exist in different cases, according to the precise seat, extent, and intensity of the disease. Thus if the inflammation commence in the superior part of the medulla, the muscles of

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the lower jaw and others about the neck will be first affected, and the disease will follow the course most usually observed in *tetanus*.

But if the disease be primarily located in the inferior part of the canal, rigidity and contraction of the muscles of the trunk and lower extremities will be first observed, and paralysis will perhaps more frequently occur. Although more or less acute pain is generally felt along the course of the spine, and through the epigastrium, yet this is by no means invariably the case.

Sometimes very little pain is felt throughout the whole course of the disease. When the inflammation is confined to a single point, and is of little intensity, the pain and even swelling may be referred to some remote organ, which is supplied with nerves from the affected part; and thus the true origin of the complaint entirely escapes observation. This fact is well illustrated by the following case which lately came under my own observation.

Mr. B*****, aged about 40 years, was, during the months of April and May last, much exposed to cold and wet, particularly during the night time. He was soon attacked with pain, and rigidity of the muscles of the chest and extremities—pain also along the course of the spine; but the principal seats of pain were the intercostal muscles, the ancle joint of the left side, the thumbs, and fore and middle fingers of each hand. There was also a slight cough, which was suppressed as much as possible, from the soreness of the intercostal muscles; pulse rather quick and tense—bowels costive—some thirst—and appetite impaired. There was tenderness to pressure over the whole course of the spine; and particularly so over the lumbar, and upper part of the sacral regions. The affected ancle and hands were considerably swollen, and at times exceedingly painful. It was not until the 12th of September, that he came under my care. He had previously been freely bled and purged; and blisters with stimulating liniments re-

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peatedly applied to the affected limbs and chest, but with very little amelioration of the symptoms. The patient was now again freely purged with a combination of calomel and colchicum, and at the same time powerful counter-irritation was made over the most tender parts of the spine. This was followed by immediate and almost complete relief from pain both in the chest and extremities; the respiration became natural, the cough subsided, and the appetite was soon restored. The counter-irritation was continued with an occasional laxative one or two weeks; after which the patient commenced his daily labors, with only a slight thickening and stiffness of the parts around the affected ancle; having been confined to the house more than three months. In this case the disease had been termed sub-acute rheumatism; and all the ordinary means for subduing that disease employed, and persevered in, though ineffectually, for several weeks. But the pain and tenderness along the course of the spine, together with the speedy relief of the pain in the extremities following the application of counter-irritants to the lumbar region, leave no doubt in my mind that the sub-acute inflammation of some portion of the spinal marrow, its membranes, or the roots of the spinal nerves, constituted the true seat of the disease. It should have been remarked also that pain sometimes passed from the hip down the leg to the affected ancle; and this was particularly the case when firm pressure was made over the lower lumbar vertebræ.

The same fact is also well illustrated by an interesting case related by Dr. Samuel Annan, of Baltimore, in the 39th number of the American Journal of Medical Sciences. In this case the disease was caused by a wound in the foot, from which the pain and inflammation were propagated up the leg to the spine; it then appeared in the arm and shoulder, accompanied by considerable swelling; this was followed by two successive attacks of trismus, resembling the commencement of tetanus. During the whole time

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there was very little appearance of fever, but there was a sense of heaviness, and great tenderness to pressure at the upper part of the spine. One or two cuppings, and the free application of tartar emetic ointment, over the tender part, afforded *very speedy, and almost complete relief.* But not only are the nerves of motion affected, producing spasms, but the spinal cord being also the centre of the nerves of sensation, its diseases will necessarily often disturb more or less the sensibility of parts. Hence it is that in many cases of paralysis, there is at the same time increased sensibility of the paralyzed part. Hence also the excruciating pain often experienced, and generally referred to some remote part, as in the two cases already referred to. And not only is there pain and tenderness of the part, but the blood vessels often sympathize, producing considerable swelling, and apparent inflammation.

Causes.—Inflammation of the medulla spinalis is a disease met with in all countries, and at all seasons; but occurs much more frequently in the sultry regions, during the prevalence of extreme heat, or sudden changes from heat to cold. When the disease occurs idiopathically it is generally the result of exposure to cold and moisture, particularly on the evening of a warm and sultry day. Want of cleanliness, proper diet, clothing, ventilation, &c., also predispose to this disease. Intestinal worms, and other morbid matter existing in the intestinal canal, may by the irritation which they produce give rise secondarily to disease within the spinal canal. Injuries and wounds of all kinds, and in whatever parts, are also capable (by the irritation which they produce, being transferred through the medium of the nerves) of producing a high degree of irritation and even inflammation of the cord and its membranes. This is well illustrated in the case related by Dr. Annan already referred to. Indeed if our views of the pathology of tetanus are correct, then are wounds, amputations, &c. by far the most frequent causes of this disease;

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and all the causes which are commonly enumerated as giving rise to that disease in any of its various forms, may with equal propriety be mentioned as causes of this. The disease of the spinal organs may commence within a few hours after the reception of an injury, or not till after several days, or even weeks have elapsed, and the wounds entirely healed. Much the greater number of cases however occur between the fourth and fourteenth day after the injury was received. The periods of childhood and youth are more favorable to attacks of this disease than that of manhood; and it rarely occurs after the age of fifty. It has been alleged also by some, that negroes are more liable to its attacks than the whites; but this is probably owing entirely to their more frequent exposure to its predisposing and exciting causes.

Diagnosis.—The most prominent symptoms indicative of spinal inflammation, are a peculiar and anxious expression of the countenance, with tonic contraction of the muscles of the back, and a sense of tightness at the epigastrium. And if the inflammation is seated in the upper part of the cord, there will be trismus, with all the symptoms of idiopathic tetanus. The mental faculties are generally undisturbed unless the inflammation extends to the brain, when delirium, and not unfrequently coma ensue. Though these prominent symptoms are amply sufficient to distinguish this disease in its most severe and undisguised form, yet a certain grade of inflammation, of limited extent may be going on in the spinal marrow and its membranes for a considerable time without producing any one of the above mentioned symptoms, except, perhaps, the pain in the back. There may be no spasms, no tetanic contraction of the muscles, and no very marked expression of the countenance. But the disease will be referred to some remote part; generally to one or both of the extremities, and is most frequently mistaken for sub-acute rheumatism. However, in such cases I believe there is always more or

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less pain and tenderness of some part of the spine, as was exemplified in the case of Mr. B*****.

With regard to tenderness or pressure along the spine, as a diagnostic sign of inflammation or high irritation of the cord or its membranes, very different opinions are entertained by different writers. Some consider it of little value, alleging that it is only a morbid sensibility of the skin, and soft parts external to the spinal canal, and having no nccessary connection with any diseases of its contents.

It should be remembered, however, that the nerves of sensation supplying the whole cutaneous surface, are derived solely from the medulla spinalis; and that it is from this organ they derive their power of transmitting impressions. Hence it follows as a necessary inference that a morbid sensibilitv of any part, or the whole of the cutaneous surface, would always be indicative of more or less excitement or irritation of the posterior part of the spinal cord; but facts also confirm this view of the subject. Thus in the case detailed by Dr. Annan there was not only tenderness over the spine, but even slight pressure produced contractions of the little and ring fingers. Also in the case of Mr. B*****, it will be recollected that pressure over the lower vertebræ of the loins, often caused pain to dart down the leg and through the ancle; and pressure upon the first and second cervical vertebræ, not unfrequently causes pain of the brow, &c.; thus showing not only that there is an undoubted connection between this external tenderness, and an irritable state of some portion of the cord, but also that it is possible by pressure to affect the roots of the spinal nerves in their passage through the spinal foramina. If this view of the subject is correct, tenderness to pressure over any part, or the whole of the spinal column, is of the highest importance as a diagnostic sign of spinal disease; and especially so in those sub-acute or chronic cases of limited extent which frequently occur unaccompanied by spasms, or other very marked indica-

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tions of spinal disorder. Sometimes general spasms, rigidity of the muscles of the extremities, &c. arise solely from disease of the brain; and it becomes an object of importance to distinguish these from the same symptoms, as proceeding from spinal affections. This is generally easily done from the entire absence of mental disturbance in the latter, and its almost invariable presence in the former. Also spasms from spinal affections are much more permanent and lasting than when they arise from cerebral disturbance.

Appearances on Dissection.—The most common appearances exhibited by the spinal marrow, on dissection after death, are serous effusions with increased vascularity in its investing membranes; also a turgid state of the blood-vessels about the roots of the nerves, and of the substance of the medulla itself; and not unfrequently softening and sometimes even complete disorganization of its structure to a greater or less extent. Suppuration sometimes occurs, though far less frequently than serous effusions. Extravasated blood has also been found in the spinal sheath, in a few instances; and many other morbid changes as the deposition of albuminous concretions, ossific matter, &c. Lacerations, effusions of blood, and other lesions have been observed in the muscles, arising from their violent contraction. They are also often unusually rigid after death. All the foregoing morbid appearances have been frequently observed after fatal cases of tetanus. Indeed it is the frequent occurrence of these morbid changes in the cord and its membranes, that constitutes one of the strongest arguments in favor of our views of the pathology of that disease. From seeing those muscles particularly affected which derive their nerves from the spinal cord, while those supplied with ganglionic and cerebral nerves were generally unaffected, the medulla was early looked to as the essential seat of this formidable malady.

Galen was of this opinion; but the attention of physi-

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cians was first directed to the morbid appearances of the spinal marrow in fatal cases of tetanus, by Dr. John Frank, who published two cases in which strong marks of previous inflammation were detected, throughout a considerable extent of the cord. A number of cases were afterwards published by Dr. Reid, in which the principal seat of inflammation was found to be in the membranes, indicated by serous, and in some very severe cases, gelatinous effusions between the arachnoid and pia mater. Similar observations have also been published by Walther, Saunders, Larrey, Magendie, Recamier, Monat, Jobert, Broussais, Abercrombie, Kennedy, and many others. "The fact, therefore," says Dr. Eberle, "that strong marks of inflammation in the spinal prolongation of the encephalon, are very common post mortem phenomena in tetanus, appears to be sufficiently established."* That pathology of tetanus which makes inflammation, or a high degree of irritation in the medulla spinalis or its membranes, its essential and immediate cause, is farther supported by the fact that tetanic spasms may be artificially produced by mechanically irritating the cord, without materially compressing it.

The experiment may be easily performed on animals by thrusting a slender wire along the spinal marrow. It has been frequently repeated with uniform results by Drs. Walther, Philips, Le Gallois, Brodie, and some others. The inflammatory nature of this disease, is also supported by the frequent success of powerful antiphlogistic and sedative remedies.

But it is urged on the other hand that many fatal cases occur in which no morbid appearances can be discovered on dissection, and that the exhibition of alcoholic liquors, and other powerful internal stimulants as often prove beneficial as those remedies which bear an opposite character. The frequent appearance of strong marks of inflammation in the cord and its membranes after death, is consi-

*Eberle's Practice, Vol. 2, p. 124.

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dered only an effect arising during the progress of the disease, and not its proximate or essential cause. That the spinal marrow is the essential seat of tetanus no one seems to deny. The simple question then is whether the particular condition of this organ, which gives rise to tetanic spasms, &c. is inflammatory, or as Mr. Curling and some others contend, only "a functional disease, the nature of which, although essentially distinct from inflammation, is completely unknown." Were this a question merely theoretical, we should pass it by without comment; but it is one of the highest practical importance.

We have mentioned the severe and rapidly fatal tendency of the disease—the numerous appearances of inflammation on post mortem examinations—and the, at least, occasional success of a strict antiphlogistic treatment, as conclusive arguments in favor of its inflammatory nature. That cases do occur, and proceed rapidly to a fatal termination without leaving any very distinct traces of inflammation, there can be no doubt.

But before it can be affirmed that even in these cases, no lesion of structure exists, it must be ascertained that every such lesion, however minute, can be discovered by the knife of the anatomist, which we are not prepared to admit. Concerning the success of stimulants and tonics, we have only to remark that there was a time when these same remedies were extensively employed in the most active and violent forms of fever; and even at the present time, there are a numerous class of pretenders in medicine who make use of them in the same diseases. And notwithstanding their acknowledged injurious tendency, many patients manage to recover.

We may concede, however, that the disease in its very commencement is only "a strong irritation in the spinal marrow and its membranes, which in most instances gives rise to vascular turgescence, and in the progress of the malady, to inflammation and consequent effusion or disor-

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ganization."* For, according to our views, every inflammation however severe and well marked, is only "a strong irritation" in the incipient stages of its existence. But it matters very little whether we call the primary step in this formidable malady a "tetanic irritation" producing vascular turgescence, and tending directly to inflammation and its consequences, or apply the term inflammation directly, as its essential nature would be in either case the same. Mr. Swan has related several cases in which there were strong marks of irritation in the ganglia of the great sympathetic. Other cases have been recorded, in which the disease seemed to arise from tubercles and other affections of the brain. And Mr. Abernethy thinks that in most instances the digestive organs are primarily in fault; the spinal cord and voluntary muscles becoming affected secondarily.

Prognosis.—The prognosis in inflammation of the medulla spinalis and its membranes, and especially that form of it commonly denominated tetanus has, from the earliest periods of medical science been considered exceedingly unfavorable. Notwithstanding we are inclined to think that if the disease is early and vigorously attacked with the appropriate remedies, cases of recovery would be very numerous. However the prognosis should ever be given with the greatest caution.

If the disease come on slowly, the pulse remaining below 110, the muscles of the larynx unaffected, and especially if there remains a disposition to sleep, we may expect a speedy recovery. On the other hand if the disease come on rapidly, the pulse speedily rising above 120 beats per minute, with spasms of the respiratory muscles, tremors of the extremities, and great agitation of the countenance, we may apprehend a fatal termination.

Dr. Parry asserts in speaking of tetanus, that if the pulse during the first day rises above 120 per minute, the case

*Eberle's Practice, Vol. 2, p. 125.

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may be regarded as inevitably fatal. This disease is much more frequent and severe in hot climates, than in more temperate regions. The idiopathic form is also considered more under the control of medicine than cases arising from local injuries and wounds. The supervention of delirium or coma, indicating an extension of the disease to the brain is likewise very unfavorable.

Treatment.—The frightful appearance and rapidly fatal tendency of most cases of spinal inflammation, has led to the employment of almost every powerful article of the materia medica; and has induced practitioners to push, each their favorite plan, to a great and not unfrequently ruinous extent. Indeed until within the last few years, the treatment of inflammation of the spinal cord giving rise to spasms, and especially of that form denominated tetanus, has been little better than empirical. Wine, opium, mercury, tobacco, cold effusion, tonics, bleeding, purgatives, antimony, &c. have all been given in the greatest profusion, and each in its turn recommended as amply sufficient to overcome the disease. All this difference of opinion among authors of the highest respectability, results solely from a discrepancy in their views concerning the true nature of the malady. Where the disease is acknowledged to consist of a high irritation, or inflammation of the spinal cord, or its membranes, there can be but one consistent mode of treatment, viz: the antiphlogistic.

One or two general bleedings at the commencement, followed by cupping or leeching over the region of the spine, will not only make a very decided and favorable impression in mitigating the violence of the disease, but will also greatly facilitate the operation of other remedies. This, however, like all other remedies, may be carried too far, or employed injudiciously. The great violence of the malady rapidly exhausts the vital powers, and hence direct and powerful depletion is calculated to do good in the earlier stages only. In the commencement, unless the patient is

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already much debilitated by previous disease, a vein should be opened, and the blood suffered to flow until a decided impression is made on the pulse, then if the patient can be induced to swallow, give a strong dose of some purgative medicine, as ol. ricini, and ol. terebinthinæ; or ol. tiglii, assisted by powerful purgative enemata. If the pulse again increase in fulness and strength, the general bleeding may be repeated, and leeches applied to the spine. And at the same time, if the spasms continue violent, tobacco enemata should be administered in such a manner as to bring the system fully under the influence of that powerful sedative; and also apply counter-irritation by means of a caustic issue over the whole course of the vertebral column. The sedative effects of the tobacco as well as of blood letting, should be closely watched lest as the spasms subside and the disease yields, fatal exhaustion should also ensue. And if storng symptoms of prostration, as a weak and tremulous pulse, tremors and agitation of the muscles, &c. do occur, tonics, opium, and even wine should be exhibited in quantities sufficient to sustain the vital powers. Or if the patient is already much debilitated by disease or injury previous to the accession of the spinal affection, general bleeding must be dispensed with, and the case entrusted to the remaining remedies.

If this mode of treatment is adopted early, and pursued vigorously, I am fully convinced that it will succeed in a large majority of cases. Whatever purgatives are employed, should be given in doses sufficient to produce free evacuations from the bowels, and repeated in such a manner as to keep them loose throughout the whole course of the disease. After sufficient depletion, much dependence is to be placed on tobacco injections, and counter-irritation along the spine. The former may be prepared by infusing a drachm of tobacco in a pint of boiling water, gradually increasing its strength at every repetition of the remedy, until the system is brought fully under its influence, when the

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spasms generally speedily subside. The latter is most effectually done by the application of caustic potash on one or both sides of the spinous processes of the vertebræ; and is at present much relied on by many eminent American practitioners. Indeed counter-irritation along the whole course of the spine was strongly recommended by *Celsus* in tetanus; and the practice has been revived in modern times by Dr. Wm. Carter, who reported a case successfully treated by blistering in this manner, and the occasional use of a brisk purgative. But the far more prompt and effectual mode of applying the caustic potash, was first tried by Dr. Hartshorne of our own country, and has been repeated by many others with the most gratifying results.

In a case related by Dr. T. Thomas of Maryland. the spasms yielded completely in one hour after the application of the caustic, although "wine, mercurial frictions, opium," &c. had been previously tried without effect. Dr. Reese, of N. York, also states that the severest case of traumatic tetanus he ever saw, yielded speedily to the free application of the caustic along the extent of the spine, from the cervix to the sacrum.* The same remedy is also highly recommended by Prof. J. Delamater in his lectures. It should, however, never be relied on to the exclusion of all other remedies.

When the disease assumes a chronic form, calomel in combination with opium, given with a view to its constitutional effects will often prove very beneficial. Dr. McClellan has applied the actual cautery over the vertebral column in one instance, and with unequivocal benefit. And Dr. Smith states that he has treated four cases with the *wine* of *colchicum*, three of whom recovered.† I am well aware that all the remedies now proposed, have been frequently tried, and almost as frequently failed; but it is

*Cooper's Surgical Dictionary, with Notes, by David M. Reese, M. D. Vol. 2, p. 346.

†American Journal of Medical Sciences, No. 39, p. 161.

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not difficult to account for these oft repeated failures. Almost every powerful therapeutic agent in the materia medica has been from time to time employed; not however, as adapted in its nature and effects, to some particular stage or variety of the disease, but rather as a specific in all stages and for every variety.

Thus general bleeding has been employed and repeated from day to day until several *hundred* ounces of blood have been taken from one patient, and with occasional success; but far more frequently fatal exhaustion ensues. Hence the disease is declared not of an inflammatory nature, and general depletion condemned. The same may be said of wine, and other alcoholic liquors which have been so highly recommended by Drs. Rush, Currie, Hosack, and some others, in doses of "quarts, and even gallons daily."* Dr. Hamilton thinks our principal reliance should be placed on purgatives, others on counter-irritation, &c. But no remedy has been more extensively or empirically employed than opium. It is recommended in very large and often repeated doses until sleep or stertorous breathing is produced. It has been given in *scruples*, and even *drachms* at a dose.† Indeed Mr. Abernethy mentions a case in which he found *thirty* drachms of solid opium undissolved in the stomach.‡ One of the physicians to the British forces, who served through the peninsular campaigns, states that in tetanus, "a *quart of laudanum* was given in the course of twelve or fourteen hours, and a *drachm* of *solid opium* every two hours; and the patients all died."§ And no wonder, for it must be obvious to every reflecting mind that if the spasms subside, and the disease begins to give way, while such an enormous quan-

*Eberle's Practice, Vol. 2, p. 131.

†Edinburgh Medical and Surgical Journal, No. 17.

‡Abernethy's Lectures.

§Annan on Spinal Inflammation, &c., in American Journal Medical Science, No. 39, p. 99.

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tity of opium remains in the system, stertorous breathing, coma, and death must be inevitable.

In Dr. Barr's case, where a drachm of opium was administered at once after the abstraction of eighty-two ounces of blood, the breathing in one hour "became slow and laborious," and had not "full vomiting" occurred soon after, "which produced much relief," coma would no doubt have taken place.

That opium in moderately large doses may be given after sufficient depletion and purging, with much benefit, it is not necessary to deny. But the enormous abuse of this remedy cannot be too severely reprehended. And indeed I am inclined to think that in all cases where a powerful sedative and anti-spasmodic is required, tobacco in the form of injections affords a far more manageable and effectual means than opium. This remedy, and especially the oil of tobacco was highly recommended by the earlier writers, as an external application to the neck and back in tetanus. But the attention of physicians has been more recently directed to it by Mr. O'Beirne of Dublin, and Dr. Anderson. Dr. T. B. Curling in his Essay for the Jacksonian Prize, published in 1834, speaks of tobacco, exhibited in the form of injections, in the highest terms of commendation. Indeed, says he, "I have not succeeded in finding a single case, in which, being fully and fairly tried before the powers of the constitution had given way, it has been known to fail."* And he adds, "tobacco is a more certain and potent sedative than opium, the latter being a remedy that can never be relied on, having failed far oftener than it has cured."

Mr. Travers also speaks favorably of this remedy. During its use it is often neccessary, to support the system by tonics and stimulants; of which the carb. of ammonia is perhaps the most effectual. Various other remedies have been proposed for the cure of this disease, as the cold, and

*"A Treatise on Tetanus," by Thomas Blizard Curling, London, 1836.

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warm baths, antimony, hydrocyanic acid &c., but none of them can be relied on, and some may do injury. The treatment of acute inflammation within the spinal canal, including tetanus in all its forms, may be summed up thus; *bleeding*, general and local in the commencement, followed by *brisk purgatives*; counter-irritation by the application of caustic along the spine; tobacco injections, and if symptoms of prostration occur, tonics and stimulants.

If the disease assume the chronic form, the same remedies may be employed; only pursued with less energy. But in such cases we might rely more particularly on the counter-irritation coupled with the use of mercury in combination with colchicum.

If as some suppose, hydrophobia is a disease similar in in its nature to tetanus, only seated in the medulla oblongata, would not the remedies now enumerated, directed so far as possible to that point, afford the best chance of success in combatting that truly frightful malady?

Closely connected with the subject of spinal inflammation is another of much importance, termed *spinal apoplexy*, or congestion of the spine in new-born infants. This is a disease of no very rare occurrence, yet its nature has been very little understood until within the last few years. The soft and very impressible state of the brain, and whole nervous system in young children, gives them a peculiar predisposition to this form of disease. It occurs most frequently between the ages of one and eight days; though it is not wholy restricted to this period. The most usual course of symptoms is well illustrated by the following case, reported by Dr. Evory Kennedy.* "On the fifth day from birth the child was suddenly attacked with screaming, which continued for an hour, it afterwards fell into a sound and protracted sleep, bordering on stupor, and on awakening the next morning, its face was livid, eyes shut,

* American Journal of Medical Sciences. No 40, Page 499. August 1837.

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mouth drawn down on each side, and frothing; and its arms were fixed firmly against its sides. In the course of the morning the breathing became hurried, and the abdomen very tense; and it died within twenty hours from the commencement of the attack".

On dissection a few hours afterwards, "the brain, abdomen, and thoracic viscera were found perfectly healthy; but a remarkable vascularity and turgescence of the spinal, and medullary vessels was observable throughout their whole course." This affords a case of simple congestion, uncomplicated with any other affection; and terminating fatally. In some cases the most prominent symptoms are a fixed state of the jaw, and difficulty of deglutition, forming what has been termed *trismus nascentium*. In others the child has frequent fits of screaming, with rigidity of the muscles of the back, and hurried respiration.—Sometimes partial, and even general paralysis occurs, and is generally indicative of more or less effusion; though by no means invariably so. Morgagni relates a case of effusion into the spinal canal, attended with great pain und paralysis; and M. Chevalier mentions a similar one, occurring in a child of twelve months old, which proved fatal in three days. This congestion of the spine in new-born infants, is not unfrequently complicated with cerebral affections. In such the complaint is commonly ushered in by a fit of general convulsions, followed by the symptoms already enumerated.

Dr. Kennedy has also related two striking cases of this kind, one commencing the first, and the other the third day from birth, and both terminating fatally.*

Diagnosis.—The symptoms most uniformly characteristic of this affection are, sudden screaming, succeeded by a livid countenance; fixed state of the arms, or lower jaw; rigidity of the muscles of the back, or neck, and generally tense abdomen.

* Cases related in the American Journal Medical Sciences No. 40. 1837.

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Though I have never seen it verified by dissection, yet I believe many children between the ages of one and five or six years, are attacked with an affection of the spine, somewhat similar to the one under consideration; characterised by sudden and severe fits of crying; constant fretfulness, and irritability of temper; with morbid sensibility of the whole surface of the body, and quick pulse. There are no very marked symptoms of disturbance, either in the thorax or abdomen, but they are generally styled cases of worms, both by parents and physicians. They are apt however, to prove obstinate; and one instance I have known to terminate fatally.

Prognosis.—Spinal apoplexy, though always dangerous, is by no means necessarily fatal. Almost every thing, however, depends upon its early detection, and prompt treatment. After effusion to any considerable extent, has taken place, very few, if any cases recover.

Post mortem appearances.—In simple, uncomplicated cases, terminating fatally within the first twenty-four hours, greatly increased vascularity, and turgescence of the spinal and medullary vessels are often the only morbid appearances observable.

In more protracted cases, some serous effusion is generally found between the arachnoid, and pia mater. In a case related by Dr. Abercrombie, an effusion of a gelatinous fluid was found in the spinal canal, but out-side of the theca.*

That variety of the disease depending on extravasation of blood, is comparatively rare; much more so than in the adult. One case is mentioned by Dr Abercrombie, which occurred in an infant, six days old. The blood was effused into the canal without the theca; and the most striking symptoms were a fixed state of the jaw, and difficulty of deglutition.†

* Abercrombie on the Brain page 366.

† Ibid.

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Another case of *trismus nascentium*, is recorded by Dr. E. Kennedy, which terminated fatally within thirty hours. The only morbid appearances were a considerable effusion of blood, with great turgescence of the vessels of the medulla spinalis. Several other cases of this kind are recorded by Drs. Bright, Chevalier and Oliver, which were the result of injuries.

Treatment.—The indications of cure in this affection, are plain and simple. They are, first, to diminish the fulness of the congested vessels—and second, to restore the equilibrium of the circulation. The first indication is best fulfilled by the immediate application of one, two, or three leeches along the spine, in proportion to the age and strength of the child, followed by a cathartic of calomel or castor oil, and the free application of volatile liniment over the dorsal region. These means will generally produce a very marked improvement of all the symptoms, and in many cases effect a cure. But if the congestion should again increase, as indicated by an aggravation of the symptoms, the local bleeding should be repeated to such an extent as the patient will bear. The second indication is generally fulfilled by the exhibition of tonics or stimulants, of which wine whey is much the most effectual. It should be given in small quantities, and is especially necessary, if during or after the local bleeding, the countenance becomes pallid, the pulse quick, and other symptoms of exhaustion occur.

These are the principal means for combating this disease, and if resorted to promptly, at its commencement, they will succeed in a large majority of instances. But the utmost care and attention is necessary on the part of the practitioner, lest on the one hand he pursue depletion too far, producing syncope and fatal exhaustion; or on the other, he fall into the equally fatal error, of withholding it too long, or using it too sparingly. Indeed it is sometimes necessary, as Dr. Kennedy observes,* to "*alternate* the

*Dublin Journal, January 1837.

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depletion and stimulation again and again before the oppression and fictitious debility are removed."

CHAPTER III.

SPINAL IRRITATION.

The subject of this chapter has for the last few years engaged the attention and enlisted the favor of many able medical writers. As early as the year 1791, Dr. Frank published at Pavia a work entitled, "De Vertebralis Columnæ in Morbis Dignitate;" and in 1808 Dr. J. Saunders of Edinburgh tanght his pupils to search for the sources of many important diseases at the roots of the spinal nerves. Since that time we have been favored with the observations and writings of Dr. Griffin, of Limerick, Drs. Brown, Tate, Teale, Torbet, Marshall, Annan, and some others. But notwithstanding so long a list of respectable names are found in its favor, the peculiar doctrine of *spinal irritation* has wholly failed to excite, at least in this country, any permanent or considerable degree of attention among the great body of medical men. This may be owing principally to two causes. First, the shadowy and indistinct nature of the complaint; and second, the peculiar and unsatisfactory nature of the evidence upon which it rests. The nature of the alledged disease is very indefinite and intangible. It being very rarely fatal, few opportunities are presented for post mortem examination; and in the few that have occured, no perceptible morbid appearances were found in the spinal canal.

I am well aware that where symptoms clearly point out the existence of affection in some organ, the absence of perceptible structural lesion is not in all cases proof that such affection did not exist. But we know very little concerning the nature of irritation, except as it occurs in that peculiar state of the system, or of a particular organ, which immediately precedes the actual occurrence of in-

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flammation. The diseases said to arise from spinal irritation are both numerous and diversified; presenting almost every variety of symptoms to which the human system is liable. Indeed if we carry out the doctrine of some on this subject, this same spinal or nervous irritation is the first link, the grand starting point of every disease.* Thus we find diseases of the heart, asthma, phthisis pulmonalis, liver complaints, dyspepsia, cramp in the stomach, diabetes, tabes mesenterica, chorea,† fever, gout,‡ hysteria, catalepsy,§ neuralgia, angina pectoris, palpitations of the heart, &c. &c.§§ all arranged in the same list, and attributed by different writers to the same primary irritation. As we have already remarked, such is the proneness of the human mind to magnify its own supposed discoveries or improvements, that a novel theory once embraced, is immediately applied to the explanation of phenomena the most diverse, and diseases the most remote from each other in their origin, progress and final results, are brought together in the same list, and attributed to the same primary morbid condition. Such has been in too great a degree, the disposition of writers on the subject under consideration. Instead of being content with the not unimportant discovery that a morbid irritability of the medulla spinalis, or of some particular nerves, is sometimes, or even frequently the cause of hysteria, neuralgia, and some other nervous complaints, they apply the doctrine to every variety of disease, and thus not only bewilder the student, but render the sober and reflecting incredulous to the whole. Again some writers, as Dr. Samuel Annan of Baltimore, seem to make no distinction between "spinal irritation" and inflammation. Thus in some observations which he

*"Practical Obsevations on Diseases of the Heart, &c. occasioned by Spinal Irritation," by John Marshall, p. 55.

†Marshall. ‡Saunders' Lectures.

§Tate.

§§Messrs. Griffin.

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published in the American Journal of Medical Sciences, while speaking of the importance of tenderness on pressure over the vertebral column as a diagnostic symptom, he adduces a case related by M. Serres, in the Archives de Medecine, where there "was complete muscular paralysis, with increased sensibility of the whole surface of the body. He cried out and suffered great pain when the skin was lightly touched, and when the paralyzed limbs were moved. On examining the body after death, the anterior portion of the spinal cord, between the sixth cervical, and third dorsal vertebræ was found softened and disorganized to the extent of three inches and a half; the posterior portion at the same part, was slightly altered to the extent of one inch. The increased sensibility came on after the paralysis had existed some time."* Now this together with some other cases, adduced by the same writer, are plain and undoubted instances of inflammation of a limited portion of the spinal cord, terminating in disorganization of structure, and hence prove nothing concerning the disease in question. The evidence on which the advocates of the doctrine of spinal irritation principally rest, is twofold, consisting of the symptoms presented, and the nature of the therapeutic agents employed. The symptoms as I have already stated, present every possible variety, from the most terrific and protracted convulsions, to the quiet sinking of faintness, and from the most agonizing pain, to the simple tenderness of the spinal processes of the vertebræ. The last mentioned symptom, however, I believe is the only one which is stated as being present in all cases; and is consequently chiefly relied on in forming a diagnosis. But even this is sometimes very slight, amounting to no more than a "thrilling sensation when the hand is passed rapidly down the cervical and dorsal portions of the spine;"† while in other instances the slightest touch

*American Journal of Medical Sciences, Vol. 20, No. 39, p. 92.

†"Marshall on Diseases from Spinal Irritation," &c., p. 40.

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produces the most intense suffering. And there is still a question of dispute concerning the origin of this spinal tenderness. The peculiar anatomy of the spine almost necessarily precludes the idea of direct pressure upon the medulla spinalis from the ordinary force of the hand; and hence it has been asserted by some that the origin of the tenderness is external to the spinal canal, and wholly unconnected with the cord, while it is frequently admitted by others that the skin and soft parts external to the canal are the immediate seat of tenderness; but at the same time they contend that these parts receiving their nerves of sensation directly from the spinal cord, the tenderness in them is equally indicative of morbid excitement or irritation in the cord, as though direct pressure was made upon that organ itself.* It cannot be doubted but disease of the spinal cord often produces an increased sensibility of the whole surface of the body. This fact is well illustrated by the case related by M. Serres already alluded to. The great difficulty in applying this explanation to the subject under consideration seems to be the limited extent of the morbidly sensible surface; it being sometimes confined to the spinous process of a single vertebra. Whereas we should *a priori* infer, that if the irritation of the medulla should be of sufficient extent to produce any serious derangement of the system, the morbidly sensible surface would be far more extensive. Nevertheless when tenderness of the spine is coupled with other symptoms strongly indicative of disease at the origin of the spinal nerves, it should be allowed some weight in forming a correct diagnosis. The utmost caution however, should always be exercised in examining for this disease lest we fall into the very great error of confounding with it other diseases in their nature wholly distinct. Not long since I was called to visit a young lady who had been scarcely able to leave

*American Journal of Medical Sciences, Vol. 20, p. 92.

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her room except in a carriage for four or five years. She was considerably emaciated, with a languid countenance, tongue rather *red* but moist, pulse languid and feeble, bowels generally slightly costive, sometimes relaxed, with frequent severe pain after indulging in too much food, appetite moderate, much pain along the course of the spine, and especially in the lumbar region, tenderness to pressure over the spinous processes of the inferior dorsal and upper lumbar vertebræ, great excitability, as well as debility of the whole system, with frequent palpitations of the heart, and a feeling of great languor and indisposition to exertion.

This lady had been attended at different times, by a number of medical gentlemen, some of them of high standing in their profession. Her complaint had been considered one of general debility, *nervous irritation*, dyspepsia, or consumption.

She had used accordingly and in succession tonics, chalybeates, dieting, very slight *frictions* with *tartar emetic ointment* over the *spine*, mercury to salivation, &c. She had once or twice resorted to the most celebrated watering places in our country, but all with no permanent benefit, and her health on the whole continued to fail. Not being satisfied in regard to the nature of the pain in the back, I determined on making a more thorough examination. This was attended with some difficulty, owing to the extreme delicacy of the patient. At length however, an old and experienced accoucheur, was permitted to make the desired examination. And to *his* surprise "the os uteri was found low down in the vagina, and the fundus of the uterus, thrown back towards the sacrum;" constituting a considerable degree of *prolapsus uteri* with partial *retroversion*. No cause for this displacement could be ascertained except the pernicious habit of *tight lacing*, and perhaps a little too free exercise in ascending a flight of stairs to take care

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of a sick relative, a short time previous, to the commencement of her illness. And yet to any one acquainted with the extensive influence which this displacement exerts over the other organs of the system, it will afford an ample explanation of the preceding symptoms. And I scarcely need to add that the application of a proper mode of treatment, designed principally for remedying the uterine affection, has already afforded much relief. This is by no means a solitary case. Such is the folly of *fashion*, that many, very many young ladies are accustomed " to dress exceedingly tight; keeping their chests contracted to the greatest degree. Thus the lungs are not only compressed, and the blood imperfectly oxygenated, producing general debility, palpitations of the heart &c., but the viscera of the abdomen being also pressed strongly downward, bear with equal force upon those of the *pelvis*, not unfrequently producing more or less displacement of the uterus; which is followed by pain in the back, more or less tenderness to pressure over the spinous processes of the lumbar vertebræ, and all that class of distressing symptoms which usually follow diseases of this important organ. Now if we consider the extreme delicacy of many patients of this class, and their great reluctance in explaining the precise nature of all their sufferings, we shall readily conceive how important errors may be committed. Indeed I am well satisfied that many cases, treated from year to year for general debility, spinal irritation, or something else, are of the nature here described. And I fear that physicians generally pay far too little attention to the effects of many pernicious modes of dress."

There are, no doubt cases in which the spinal marrow becomes morbidly *irritable* as well as the brain, or any other organ in the system. And this condition of the cord may give rise to great excitability of the whole system; to neuralgic pains in various, and remote parts; to increased sensibility of a portion or the whole of the cutaneous surface; or to protracted and severe convulsions; according

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to the location and extent of the irritation; and the more or less deranged state of the digestive organs. It is undoubtedly this condition of the cord, coupled with a deranged state of the digestive organs, that gives rise to that species of rheumatism, termed nervous; many cases of which have been related by Dr. Mitchell and others.

The same may be said of many cases of *head-ache*, of which the following will serve as an illustration.

Mrs. P. aged about 25 years, of sanguine temperament, and naturally well formed; but now rather "*hump-shouldered*" from a slight curvature of the upper part of the spine, has been for many months severely afflicted with a "*hard*" pain, confined principally to the top of her head, but sometimes affecting the back of her neck also, the muscles of which are frequently rather rigid. Her digestion is also bad and her bowels very costive. I ordered her some thorough physic, followed by repeated laxatives, alkalies, alteratives, anodynes, chalybeates, &c., but with only partial relief. Finding considerable tenderness to pressure over the lower cervical vertebræ, and some rigidity and pain in the posterior part of the neck; I directed the application of a blister, to be kept sore, and at the same time continued the use of chalybeates and laxatives combined. The blister filled well, and was followed by almost complete relief. In this case and many other similar ones, the pain seems to effect the scalp and adjoining parts, rather than the brain. I have met with several instances, in which the same kind of pain affected the side, accompanied by a dry, hacking cough; and increase of pain by a full inspiration. Thus closely simulating subacute pleuritis. But in these cases there is much less fever, and the pain seems to effect the ribs and intercostal spaces rather the pleura, or lungs beneath. I have never known the pain and cough in these cases, to yield to any other treatment, than counter-irritation over the spine. A variety of interesting cases, supposed to depend upon this condition

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of the spinal cord, have been related by Dr. A. Church, in the *Transactions* of the *Medical Society* of New York. Vol. 4. Part 2.

Thus we can readily understand how this morbid excitability to impressions, when aggravated by disordered digestion may give rise to a great variety of distressing functional disorders in other organs; but that this irritability, or irritation, if it may be so called, of the medulla is of itself sufficient to produce *organic* diseases of the *heart, lungs, liver*, stomach, &c. as is contended by Dr. Marshall, and some others, is very far from being established. Indeed it is not a little amusing to see men of rare talents, and genius bringing forward cases of long standing, and well marked spinal *curvatures*, accompanied by palpitations of the heart, asthma &c. as instances of "simulated disease of the heart, lungs, &c. from spinal irritation."* But the nature and frequency of the diseases, *alleged* to arise from spinal irritation, is farther supposed to be corroborated by the nature of the therapeutic agents employed in their treatment. These consist ostensibly in making counter-irritation along the course of the spine, by means of tartar emetic ointment; but really in the employment of a variety of remedies, both external and *internal*, often well calculated to allay nervous irritability, and restore tone and vigor to the system; as well as to inspire the patient with hope and confidence, which is always of the utmost importance in all cases of this kind. Hence though great stress is generally laid on the remedial powers of the counter-irritation, yet the high mental excitement, and confident anticipation, with which one's patient is generally inspired, together with the simultaneous employment of chalybeates, laxatives and other internal remedies, often makes it very difficult for the impartial observer to determine to what source the patient's recovery ought to be attributed.

* See "Practical observations on diseases of the heart &c. from spinal irritation by T. Marshall." Page 49.

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Take for example the following case, greatly abridged from Dr. Marshall's work already several times referred to.

"W. E., aged 12 years. The case had been pronounced disease of the heart by several physicians. Original complaints were weakness, loss of appetite, palpitations of the heart, &c. He had been twice carried to the sea-side, where he always recovered flesh and strength, which was again lost on his return. He was now much worse than he had ever been, causing great apprehension of immediate danger. His former medical attendants had pursued most rigorously the starving system of Valsalva; but instead of Valsalva's bleedings, the boy's bowels had been kept in a constant state of purgation with calomel, jalap, and castor oil daily repeated. He had become emaciated in the extreme, his eyes glistening and restless, moving constantly, with an uneasy rapidity; pulse sharp and 140 per minute; tongue moist, apex *florid*, but yellow towards the roots, respiration hurried, skin warmer than natural, and voice weak. The expression of his countenance was most deplorably anxious; and on raising him upon his breech in bed, to examine the chest and spine, I found the slightest motion to increase the heart's action in a most extraordinary degree, and it seemed to beat at every part of the thorax in the same moment. On turning to the spine I was *disappointed* to find *much* less irritation or tenderness to the touch than I anticipated. Drawing the hand down, the column gave *little* or *no pain*, but caused a thrilling sensation to pass through and over the thorax; and if passed *rapidly* down, the velocity of the heart's motion was increased far beyond counting, and the patient panted like one who *ran* beyond his *strength*. I ordered a light but nutritious diet to be cautiously substituted for the starving system; the bowels to be regulated by a compound rhei pill, given at bed time, only when required. The *gastric irritation* from which he had suffered so severely, to be treated by the use of *bitters* and *alkalies*.

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Frictions along the whole course of the spine, and over the thorax, with a strong stimulating liniment. In a very few days I had the satisfaction to see a marked improvement arise from this mode of treatment. The friction was quickly followed by a copious *eruption*, but in exact proportion as the external irritation along the spine and intercostal nerves increased, the morbid action of the heart and arteries subsided; and the restlessness of the eye and the anxious expression of countenance disappeared. By a well *regulated diet*, and the use of *sulph.* of *iron* and *quinine*, the *bare bones* became quickly covered with a moist, comfortable quantity of flesh, his strength and spirits returned, and every symptom of enlarged heart completely vanished." (see page 40.)

Although the author adduces this case as one of spinal irritation, and attributes the cure principally to the external irritation along the spine, yet I think no well informed practitioner will fail to discover in the *morbid* state of the *mucous membrane* of the *intestinal canal*, a satisfactory explanation of all the symptoms, and in the proper regulation of diet, and the very *judicious* selection of *internal* remedies, a sufficient cause for the happy effect produced. It would be easy to adduce cases of this kind almost without number, but I shall insert only the following from the same source, and which shows if possible in a still stronger light, the extent to which a man's judgment may be warped by some favorite theory. This is also very much abridged. "A gentleman falling upon the *ice* received a contusion in the lumbar region, from which he did not at first perceive any great inconvenience. However, alarming weakness of the lower extremities soon came on, with retention of urine. The weakness rapidly increased almost to paralysis. The back was examined, and being tender to the touch, the case was treated as a spinal one, (by the application of tart. emetic ointment, I suppose of course, for it is not stated). The weakness of the extre-

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mities was considerably relieved, but the *retention* still continued, and in six weeks the patient expired. On examination after death, all the viscera were found healthy except the *kidneys*. These were gorged with very dark blood, and contained *several* small *abscesses*. *No morbid* appearances could be discovered in the *spinal column*." And he adds, "I conceive the *ratio symptomatorum* in this case to be, that at the period the patient fell upon the *ice* the *renal nerves* received an injury or concussion so severe as shortly after to produce paralysis of them. The blood vessels of the kidneys, and those organs themselves became incapable of performing their functions. Hence the *engorgement* of dark blood, and *breach of structure* found after *death*." (See Marshall's work, page 12.) Can any thing be more gratuitous than the author's assumption in this case, that the disease and disorganization of the kidneys was owing to the original injury of the *renal nerves*? Would not any reasonable man, not *blinded* by *theory*, suppose that the same injury or contusion which was sufficient to derange and paralyze the renal nerves, was also sufficient of itself to induce the inflammation and subsequent formation of abscesses in the kidneys? In these observations, I wish neither rashly to criticise the opinions of others, or to deny the utility of rational theories in medicine, or to lessen the importance of the subject under consideration, but simply to put students, and especially young practitioners upon their guard against receiving too implicitly the confident assertions, and plausible reasonings of men whose minds are previously warped by some favorite theory.

We may take the *facts* of almost any author, but nothing is of greater importance, than that the *reasoning* from those facts, and the *conclusions* drawn should be *our own*. There are many cases which occur in the practice of every physician, in which the functions of the voluntary muscles and other organs, which derive their supply of nerves

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chiefly from the spinal marrow, are greatly deranged without any signs of inflammation, or any considerable degree of fever, and unaccompanied by cerebral disturbance when the application of tart. emetic oint. to the spine, or other appropriate remedies directed to that source would afford very prompt relief. But such is the endless variety of phenomena which these cases present, and such the obscurity which still rests upon the whole subject of nervous *pathology*, that it is scarcely possible to deduce any general rules of importance for our guidance. And yet, no man who is *well versed* in his profession, and has carefully studied the *human system* in all its parts, will be at a loss to meet any particular case with the remedies which its peculiar nature and the *general* condition of the patient required. If the patient is delicate, nervous and debilitated, of course anodynes, chalybeates, and other tonics would be necessary. But on the contrary if she is plethoric, robust and strong, an anti-phlogistic course with counter-irritation over the vertebral column would probably afford very speedy relief.

Too much attention cannot be paid, in all these cases, to the proper regulation of the digestive organs; and among the more *fashionable classes especially*, to the *habitual modes* of *dress*. The subject needs still much, and careful investigation; not in the spirit of *theorizing*, but according to the most rigid rules of the *inductive philosophy*. Until this is done, I fear the confident anticipations of Dr. Marshall, "that the time is at hand when all the *rubbish* of *anomalous* cases, and *intractable*, and *mysterious* diseases, &c., will be swept from our periodical literature," will hardly be realized.

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ART. XIV. ADDRESS *delivered before the* CHENANGO COUNTY MEDICAL SOCIETY, *Oct.* 8, 1839, *by* DR. WM. D. PURPLE, *President of the Society.*

[Communicated by the Society.]

There is no station in life that has more important and responsible duties than that of the physician. His position is one of incessant difficulty and danger; constantly requiring that patient investigation and candid examination of truth which are to qualify him for a proper discharge of his duties.

His field is an extensive one, and embraces all the phenomena of animate and inanimate matter. His profession requires him to investigate animal life—not only in its various forms of healthy action but in all the multifarious peculiarities of the diseased state. It calls on him to acquaint himself with the animal, vegetable and mineral kingdoms; not merely in their scientific relations, but in all the numberless combinations of therapeutic influence on animal life. He has not only the anatomical, physiological and pathological character of the human system to investigate, but the various characteristics of mental phenomena with their subtle influences over diseased action to trace to their causes and to administer their appropriate remedies. In a word, the varied range of animate and inanimate matter in all their changes of disease and combination that science has or can develope, are subjects of his daily reflection, to qualify him for the station he has assumed.

The medical practitioner if he would successfully discharge the duty he has assumed, must assiduously apply himself to unravel the mysteries in which nature has shrouded herself. Many of the principles which are of essential service to him lie beyond the ken of human vision, and it is only by close research and patient investigation that she allows him successfully to interfere even in

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the slightest degree with her works. I am aware that different sentiments have lately obtained favour in the community, and we frequently hear men declare and act upon the principle that disease is a unit, and however diversified the symptoms, all disease depends on the same cause, and that one medicine, or a few compounds exhibited in uniform succession is sufficient to relieve all the "ills that flesh is heir to."

It is a truth that cannot be denied that there is a growing tendency in the public mind to patronise the ignorant and uninformed as their medical advisers at the expense of all that science has done to ameliorate the physical ills of man, and it becomes us to look about in search of the causes which have produced this impression in the community. On a close investigation some of them may be found lying at our doors. Have we done all in our power to elevate the intellectual character of our profession? Have we applied ourselves assiduously to ascertain and to bring to light the hidden virtue of our native plants! Have we unreservedly communicated our observations and experience to our brethren and solicited their application to the touchstone of truth? Have we divested ourselves of all selfish considerations, and had an eye singly to the discovery of truth in our professional career? Have we not in some instances looked with an uncharitable eye on the good deeds, and magnified the failings of a brother physician? Have we not been ready to foster and encourage invidious distinctions among members of the same profession for the purpose of personal aggrandizement? In a word have we not endeavoured to lead mankind into idolatry in order to gain public adoration at the expense of other members of our common profession. If there are any of us who are compelled to answer these questions in the affirmative, we may be regarded as having been instrumental in producing the present state of delusion in the community.

Fortunately the triumph of ignorance is of short dura-

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tion it is among the evils in the physical and intellectual world which work their own cure, and a proper attention of its members to the scientific character of the profession will soon eventuate in its due weight and influence in community.

The members of our profession have both in their corporate and individual capacity an important influence over the public mind, and it is on our deportment that the character of our profession mainly depends.

The last half century has witnessed a very great change in the manner of arriving at medical truth, and imposes important obligations on each member of the profession. At the commencement of this period, theories were formed after an imperfect view of the phenomena of diseased action, and all subsequent investigation and research in the field of fact and observation were only to furnish materials to strengthen a theory which a fanciful chimera of an ingenious mind may have brought into existence. At this time the direction of the scientific in our profession is through the inductive channel, and we discard every hypothesis that does not flow directly from well established facts. Nothing gains credence that cannot lay claim to this legitimate parentage; the beautiful theories of a Boerhaave, a Cullen, a Brown, and a Darwin, are sought for in modern times, as we seek historic incidents in the tale of a novelist. We read them to admire the ingenuity and extensive research, but we listen to their suggestions in the manner the impartial judge does to the efforts of contending counsel, that our views of the facts from different points may enable us to form more correct conclusions. Formerly the impulse to improvement was given by a few master spirits, and the mass were content to follow implicitly in the wake of some professional luminary. Now the light of science is more generally diffused, we have burst the fetters which bound us to the schools, and each assumes the prerogative of observing, analysing, and diges-

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ting such facts as present themselves to his view. We virtually declare that genius may *imagine* and become lost, in the mazes of its fancied speculations, yet it is the province of wisdom to *contemplate* and draw its deductions from the light reflected by nature alone.

The plant of medical improvement is indigenous to no local soil. There are rich materials to sustain it in every country, and its growth depends entirely on the cultivation its votaries extend to it; every section of country is required to contribute its quota of facts to sustain it. Every place has diseases of an endemic character, the proper investigation of which is the duty of the physician, not only for the benefit of the profession, but to qualify himself for his local duties to the public. Every physician should contribute something to the general stock of information held by the profession. Our science is drawn from the great storehouse of facts, which are daily presented to the eye of the profession, and unless these facts are communicated to the public, a very large proportion of them on which our science depends will be entirely lost, and we become nothing less than drones in the general hive, availing ourselves of a professional banquet to which we have contributed nothing.

The facts and observations which present themselves to the medical profession in this county, should be brought to bear upon the improvement of its members, and it should be the first business of this society, to point out the means to make our resources available to that end.

One of the prominent means for the promotion of this object, in the estimation of your presiding officer, is the promotion of proper social relations. Although our sources of information are the same, and we have drank at the same fountain of knowledge, have the same cares, anxieties and responsibilities in the same arduous profession, yet there is less unreserved social feeling among physicians as a body, than there is in any other community of men of equal intellectual attainment.

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It is a proverbial characteristic of our profession, that "doctors disagree." The sentiment is caricatured on the stage and ridiculed in rustic ballads. That men are selfish is a truth; and that physicians partake of this characteristic of human nature cannot be denied, but that we should be obnoxious to an inordinate share of it in our delicate and responsible duties, is a disgrace to the members of our profession. I make no charge of this character, and gladly do I listen to any circumstances that paliate this censure of the public voice; but all will admit that there is not that friendly intercourse among physicians, which is for their mutual advantage in their scientific attainments. All must acknowledge that a large proportion of the fatal cases of disease pass on to their termination under the eye of a single medical adviser, and that consultations are much less frequent than they should be, both for the benefit of the afflicted, and for the general information of the profession.

It is true there is, and always will be, rivalship in business, each will have his friends, and each should endeavor by a diligent discharge of duty to retain and extend his influence; but true greatness is ever attended by modesty, and we may with as much success seek for genuine piety under the garb of ostentation, as for true merit in our profession under the rubbish of self conceit. It is a characteristic of ignorance to be conceited, but wisdom "vaunteth not itself."

The members of our honorable profession should in all instances regard the character of medical science as paramount to individual praise. It will result much more to our honor in an intelligent community to aspire only to the character of an humble instrument, and give to science the praise of our triumphs, than to foster an individuality of character which is sustained by an invidious comparison with our professional brethren. If we do this, no exertion will be too arduous, and no effort too great to qualify our-

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selves for a proper discharge of our duties; we shall endeavor to become respectable in the estimation of our superiors, and cease to look to the less informed for our professional laurels; in a word, we shall cease to be of the number whose whole aim in life is to learn how to *get* business rather than how to *do* it.

Investigation in our profession, is more important than in that of any other. The causes of disease are insidious, the symptoms are equivocal, and it is only by the most patient investigation that we can form a correct diagnostic opinion in many cases. It is true that some physicians arrogate to themselves intuitive power, and profess to fathom the character of diseased action with the aid of half their senses; but such men, whatever may have been their advantages and the titles bestowed on them by medical schools, possess the most prominent characteristic of empiricism, and are living evidences that "a little learning is a dangerous thing."

We require all our senses, to form a correct diagnostic opinion in many diseases; and after all the light we are able to obtain, we are liable to be deceived. To remedy this defect in some degree, nature has wisely constituted us social beings, and provided that the same phenomena should be viewed in different lights, by different individuals. This forms the basis of consultation, and its importance is recognised in all our civil institutions. Our legislative halls, our courts of justice, and the jury box, all furnish evidence of the necessity of concurrent reflection to consummate an act where judgment is requisite in the discharge of any duty. In our profession, correctness of opinion is of more importance than in any of those; other errors may be remedied—future reflection may "right the wrong;" not so with us, our steps cannot be retraced. On our sins of omission or commission, time fixes its eternal seal of health or disease, of life or death. How important then are medical consultations? How necessary that we

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should give to suffering humanity every possible chance for relief? And how presumptuous is the man who arrogates to himself the prerogative of sole judge, where life or death is pending on the propriety or efficiency of his prescriptions.

The most powerful physical frame becomes weakened by exertion, and the mental faculties in the strongest intellect become enervated by constant attention. The symptoms in a given case may be viewed through the partial eye of first impressions; collateral symptoms may subsequently supervene, and the first note of alarm to the attending physician may be too late to prevent the ravages of some latent disease. We not unfrequently discover in the hour of dissolution certain diagnostic symptoms that had not before arrested our attention, but were lost in our contemplation of the more prominent though less dangerous evidences of disease. Constant watching will enervate the mind in the same manner as our faculties become impaired by witnessing the progress of disease in our own families. This is a critical point for the physician; it is difficult to admit even to ourselves, much more to our employers, the mental imbecility that actually exists after long watching at the bedside of a patient. In our own families we at once send for counsel, and we are under equal obligation to do so in other instances of protracted disease, where the same causes sooner or later are sure to disqualify us for a proper discharge of our duty.

In such cases no consideration should prevent us from seeking aid of our neighboring physicians. By them, latent disease may be brought to light, or we may be confirmed in our previous conclusions. In either case we determine on and pursue a course of treatment with more energy and more confidence than we did before such consultation. The spell that bound us will be dissipated, the monotony of the mind will be broken up, we feel relieved of a load of anxiety and responsibility, and we proceed with renewed vigor in our professional duty.

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It is by no means necessary we should send a great distance, and subject our patients to expense and delay to secure the attendance of some professional magnate in order to receive the benefits of medical consultations; those of equal or inferior attainment may be of service to us by a concentration of light from different points, or by the attrition produced by an honest difference of opinion. For this purpose our nearest neighbors should have a decided preference; with them we have the best opportunity to be intimate, they are more easy of access in cases of emergency, and can be more constant in their attendance to share our labors and divide our responsibilities.

A large proportion of the disagreement among physicians is without cause. The subjects of our enquiry have no tendency to produce collision, and only a small share of charity is requisite to enable medical men to live on the most friendly terms. We disagree because we can, not because we must; the world regards it as founded in selfishness and fostered by conceit; and it indiscriminately censures the whole profession as wanting candor and stability of character. Let no consideration then prevent a free interchange of professional kindness; let us cultivate the most charitable feeling towards our medical associates, that we may receive their suggestions in the spirit of respectful confidence; and let us watch with a jealous eye every selfish impression that shall present itself as a barrier to a consummation that will be attended with so much benefit to us personally, and to the profession of which we are members.

An important cause which tends to prevent consultations, is the power of the counsellor to diminish the influence of the attending physician. A very circumspect deportment is necessary to obviate this difficulty. We have very excellent rules to direct us in the system of medical ethics, published in connection with our by-laws, which should be attentively studied by those who from age or

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real or imaginary superiority are liable to be placed in positions where they have the power to elevate themselves at the expense of a less fortunate though equally meritorious practitioner. Equality is the basis of successful consultation; without it the humble physician retires with disgust from an interview with a supercilious counsellor by whom for the time being he is eclipsed in the estimation of his employer, and resolves to avoid the like mortification in future. This is an important obstacle to social feeling among us; and in behalf of the younger and less fortunate part of the profession I call on their superiors to guard well their deportment on such occasions, and let their expressed opinions be the result of mutual understanding, and as far as possible to allow the attending physician to be the oracle of communication to the patient and his friends.

Post mortem examination is the key to pathological science, and yet it is seldom brought in requisition to illuminate our professional path; and there is reason to fear that it is from the absence of that friendly relation among those who could readily be called upon to assist, that this important duty is so much neglected. We all have cases of unexpected death which baffle all our attempts to form a rational opinion of their cause. These are subjects for examination, and are proper cases to be reported to this society, to elicit a comparison of opinion among its members. These examinations are doubtless many times neglected from the fear that error may be exposed and censured; but the profession should require no better evidence of our entire devotion to truth than will be shown in frankly admitting our errors, and in exposing to others the rocks on which we may have been wrecked.

Those of us who have little or no association with our brethren, have but little stimulus for reading, and less taste for close thought and patient investigation. We take a superficial view of whatever presents itself—we traverse the same beaten track for years—the science of our profes-

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sion runs ahead of our research—we conceal our errors from our brethren, soon learn to forget them ourselves, and the grave hides them from the world. In this state we acknowledge no errors, and hence see none; we are as far from improvement as is the moralist who confesses no faults. The one "seeks not the light that his deeds may be reproved," the other "thanks his God that he is not a sinful publican!"

This society should encourage every effort to improve the profession. Each member should produce something to make up an intellectual repast at our communications; this will excite interest, and produce a general attendance. Mutual improvement will beget mutual respect; we shall forget all selfish considerations, and dedicate ourselves unreservedly to the great cause of professional truth. The kindness enkindled here will continue to enlighten our professional associations at home, and much good will be the result.

Art. XV. *Case of Sudden Death from Rupture of the Spermatic Vein:* by James McNaughton, M. D., *of Albany.*

I have drawn up the history of the following case, in the belief that it would be interesting to the Society, if not to the profession at large, on account of its novelty and the complication of symptoms which characterised it. For the early part of the case I am indebted to my friend and former pupil, James P. Boyd, M. D., who was first called in, in the absence of Dr. B. P. Staats, the ordinary family attendant.

Dr. Boyd says: "I saw Mrs. V——f, aged 38, January 28th, at 11 o'clock, A. M.; she walked from her bed-room into an adjoining parlor when I called; told me that she had always enjoyed good health; was naturally of a florid

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complexion, and healthy. The preceding night she did not rest well; was troubled with dreams, and her bowels felt *bloated*, as she expressed it. She however rose, and took a hearty breakfast. Not long after, the uneasy sensations increasing, amounting even to pain, she took, at the suggestion of her husband, a dose of salts. This however, soon produced nausea and vomiting, and the salts were rejected. The pain was so severe that I was sent for. I found her very pale, with a cold surface; lips and tongue appearing bloodless; complained of pain in the lower part of the bowels, with a constant bearing down, and sore pain on pressure. She also complained of pain generally throughout the abdomen and thorax; difficulty of breathing and faintness; pulse at the wrist very small and weak; gave her a pill of 4 grains of calomel, and 1 of opium, to be repeated every hour until the pain was relieved, and to be followed by a dose of castor oil; left directions that I should be sent for if the pain increased. In a short time I was sent for in great haste; I returned about 12 o'clock, M. and found all the symptoms aggravated; the pain very severe, and principally confined to the lower part of the bowels; great faintness, requiring constant fanning; she became easy while I remained. Saw her again at 2 P. M., and finding no reaction or abatement of symptoms, I proposed a consultation. Dr. B. P. Staats was called in, to whom I gave an account of the symptoms, and stated the embarrassment I experienced in relation to the true nature of the case. Some of the symptoms would lead one to suppose poison to be the cause, whilst the sudden and extreme prostration of strength, coldness of surface, and almost total extinction of pulse, would indicate the rupture of a blood-vessel; but then the pain could not be so well accounted for on that supposition. I supposed it hernia, but she declared repeatedly that she had no rupture or swelling about the abdomen. In confirmation of the probable correctness of this opinion, she did not refer the pain to any of the usual situations of hernia.

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We met again at 4 P. M., when finding our patient no better, we proposed a thorough examination of the abdomen externally, and of the uterus per vaginam, which was accordingly done. During this examination Dr. Staats discovered an elastic, round tumor, near the umbilicus, 1½ or 2 inches in diameter. This we had no doubt was the cause of some part of her difficulty, although the patient declared that it was no such thing; that she had had that lump for 15 or 16 years — ever since her last confinement. At this stage of the case we concluded to call you into consultation, and the further history of the patient is known to yourself."

I saw the patient in the evening, about 8 o'clock, with Drs. Staats and Boyd; found her pale, cold, and almost pulseless; complained of pain in the lower part of the pelvis, and of an urgent desire to void urine. Dr. Staats had previously introduced a catheter, but very little urine was found in the bladder. I examined the abdomen; found the bowels slightly tumid, but not tense. There was general uneasiness of the whole abdomen, and great tenderness about the navel. Close to the navel I found a tumour, smooth, and rounded, which I had no difficulty in recognizing as hernia. It was less in size than is stated by Dr. Boyd when first examined; it is therefore probable that it had been partially reduced before my visit. The patient complained excessively when I made even a gentle pressure on the tumor. Believing however, that the tumor was the source of many, if not of most of the bad symptoms, and as the case was only of a few hours' standing, and no reaction had taken place, I thought it prudent and proper to return the protruded part into the abdomen. By gentle, steady pressure in the proper direction of the aperture, I succeeded in reducing the hernia in the course of a few minutes, the patient all the time complaining most bitterly of my hurting her. The reduction of the tumor was followed immediately by sickness at stomach and vomiting. Soon after which she became easier, and we left her with

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a pulse somewhat improved, after giving suitable directions about her treatment in our absence.

As there was cause to fear inflammation of the bowels in consequence of the long confinement of the protruded parts, an enema was directed in the evening, the stomach not admitting any cathartic by the mouth. In the course of the night of the 29th, Dr. Boyd was called to see her on account of the continuance of the pain at the lower part of the pelvis and throughout the abdomen generally. A prescription calculated to relieve urgent symptoms was made. We saw her again on the morning of the 28th, at 9 A. M. The skin was somewhat warmer about the hands, and the pulse more distinct; the face was pale, cold, and edematous; bowels more full and more tender; at the umbilical foramen, upon careful examination, found a small soft tumor, less than an inch in diameter, resembling an omental hernia, and scarcely distinguishable from the surrounding adipose matter, except by its circumscribed form. We still felt suspicious that this apparent protrusion had some agency in keeping up the urgent symptoms; but she expressed great dislike to my handling the swelling, charging me with all the bad feelings she had during the night.

In the course of an hour from this visit we met again, having been joined in the consultation by Dr. March. Upon a full examination of all the circumstances of the case, we came to the conclusion that the safest course would be to cut down upon the tumor, and ascertain its condition, rather than to irritate the part by an attempt at reduction by the taxis. The patient expressed a wish that Dr. March would operate. He proceeded immediately to the operation; the integuments over the tumor were thin —the tumor itself appeared round and smooth, covered by a sack, the vessels of which were dark and loaded with blood, but upon the division of this the enclosed adipose matter appeared of its natural healthy color, and consisted of a cluster of masses of fat of different sizes. The umbilical foramen was narrow, but readily admitted a directory

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through it within the neck of the sack. The linea alba was divided downwards for a short distance by the bistury guided by the directory, and the whole protrusion readily returned within the abdomen. The parts were then brought together in the usual manner and the patient left to repose.

The operation did not afford any material relief, and the state of the protrusion was not such as would satisfactorily account for the intensity of the prostration. The bearing down and the urgent desire to void urine continued. The uterus was very low in the pelvis, and morbidly sensible to the touch, but not larger than usual in the unimpregnated state in persons who have borne child. In the evening the symptoms were somewhat milder; an enema had been exhibited and came off without bringing much fæces with it. This was followed by a full dose of calomel, and the patient was left for the night to the charge of her nurse. On the morning of the 30th, she seemed somewhat better —skin warmer, and had a free discharge from her bowels. In the course of the day her distress returned, and she passed a restless, uncomfortable night. Saw her again on the morning of the 31st, when she was evidently sinking, and in the course of a few hours she died.

The case being singular in many respects, we expressed an earnest wish that a *post mortem* examination might be permitted, and the relatives with great good sense, had the liberality to permit it.

Appearances on Dissection.—The body was examined on the morning of the 1st of February, in presence of Drs. Staats, March, Boyd, Armsby, and myself. An incision was made from the ensiform cartilage to the pubis, through the linea alba, deviating to the left in the vicinity of the umbilicus, so as not to derange the relations of the parts in that vicinity. Well formed *pus* was found at the *umbilicus* beneath the abdominal tendon, external to the peritoneum. Internally, the peritoneum appeared healthy and free from inflammation. The tumor which appeared

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at the umbilicus, and which was reduced by the operation, proved to have no connection with the omentum, but to be merely a mass of adipose matter external to the peritoneum—filling up the umbilical foramen. Half an inch below there was a small opening in the linea alba, through which the herniary tumor, which had been reduced by the taxis, had protruded. The omentum and the abdominal viscera in the immediate vicinity of the umbilicus, were healthy in appearance, and in their proper relative positions; but both the small and large intestines were enormously distended, with flatus.

In this stage of the dissection, we were struck with the quantity of bloody serum which filled the interstices of the intestines, and proceeded to ascertain the state of the parts in the lower abdominal region and pelvis. We found, to our surprise, the *whole pelvis filled with a coagulum of venous blood*, which, when carefully removed, almost filled a large chamber pot. Upon carefully examining the abdomen and pelvis, we found the source of this fatal hemorrhage. A tumor about the size of a butternut, was found near the entrance of the fallopian tube into the uterus, and distant about two inches from that organ. It was first taken for the ovarium; but a more careful examination found the ovarium in its proper place, but shrivelled and hard. The same was the case with the ovarium of the left side. This copious hemorrhage was now evidently from the right spermatic vein, and the tumor on the inner part of the fallopian tube was nothing more than a coagulum of blood, which by a slight pressure was readily removed. Those familiar with practical anatomy, know how enormously the spermatic veins are sometimes enlarged, even in the unimpregnated state of the uterus, and can therefore readily understand how suddenly the system would sink when they were ruptured. Having no valves, and communicating directly with the trunk of the vena cava on the right side, aided by the pressure of a high column of blood,

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the enormous loss found in this case, might have taken place in a very short space of time.

This appearance of things would satisfactorily account for the sudden sinking of the patient, and the want of reaction during the whole attack; but we could not thus account for the extreme tenderness of the abdomen, and particularly in the vicinity of the swelling, which appeared immediately below the umbilicus. The condition of the viscera in that vicinity did not indicate their having suffered any serious strangulation. Upon carefully wiping away the blood, however, from the *jejunum* and ileum, the upper part of the latter appeared dark for more than 18 inches; and upon drawing this portion between the fingers and thumb, it readily gave way, and had evidently lost its vitality. It was distinctly more friable than the same membrane either above or below this point. We concluded that this point had been protruded through the opening in the linea alba, and had been strangulated; that to this was attributable the tenderness about the navel, the vomiting, &c.; that the intestines were not thickened, nor the peritoneum inflamed more, might be accounted for by the exhausted state of the vascular system, not admitting of the occurrence of acute inflammatory reaction.

There is a case somewhat similar to this related in Professor Christison's work on Poisons.* In that case, however, there was a fallopian conception, and the hemorrhage took place from the appendages of the ovum. In our patient there was no pregnancy, either uterine, or extra-uterine, and the patient had enjoyed good health for years previously.

*Christison on Poisons, 3d edit. p. 107. For this reference I am indebted to my colleague, Prof. T. R. Beck.

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APPENDIX.

I. *Abstract of the Proceedings of the* MEDICAL SOCIETY OF THE STATE OF NEW-YORK, *at its Annual Session in February*, 1838.

The Society met pursuant to statute, at the Capitol in the city of Albany, on the 6th of February, 1838.

PRESENT.

Dr. James McNaughton, Permanent Member, *President.*
" Samuel White, do *Vice President.*
" Peter Van OLinda, Delegate, *Albany, Secretary.*
" Platt Williams, Permanent Member, *Treasurer.*
" Thomas Spencer, Perm. Member and Delegate, *Ontario.*
" Thomas Goodsell, Delegate, *Oneida.*
" Laurens Hull, Permanent Member.
" Henry Maxwell, Delegate, *Niagara.*
" E. B. Burroughs, Delegate, *Madison.*
" Lansing Briggs, Delegate, *Cayuga.*
" Lake J. Tefft, Delegate, *Onondaga.*
" Eli Pierce, Delegate, *Greene.*
" Augustus Willard, Delegate, *Chenango*
" John F. Gray, Delegate, *New-York.*
" A. G. Benedict, Delegate, *Dutchess.*
" Daniel D. Page, Delegate, *Tompkins.*
" Robert G. Frary, Permanent Member.
" Jonathan Eights, Permanent Member.
" Richard Pennell, Permanent Member.
" Sumner Ely, Permanent Member.
" William Bay, Permanent Member.
" Joel A. Wing, Permanent Member.
" William Tibbitts,* Delegate, *Saratoga.*
" Samuel McClellan,* Permanent Member.

* Took their seats the second day.

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The following gentlemen presented certificates as delegates from their respective County Medical Societies, and took their seats accordingly.

Dr. John Coates, *Genesee.*
" P. B. Brooks, *Broome.*
" Lester Green, *Herkimer.*
" Seth H. Pratt, *Allegany.*
" Joseph W. Richards, *Washington.*
" Alexander Morse, *Essex.*
*" John McClellan, *Columbia.*
*" Julius Rowley, *Schoharie.*
" James Webster, from the Medical College, *Geneva.*

On motion, it was

Resolved, That GAMALIEL H. BARSTOW, treasurer elect of this state, and a former delegate from Tioga County, and Dr. PETER VAN BUREN, late a delegate from Columbia County, now residing in this city, and Dr. JOHN ROLPH, of Toronto, Upper Canada, at present in this city, be invited to take seats as Honorary Members.

The following physicians, members of the State Legislature, were invited to take their seats as *ex-officio* Honorary Members.

Dr. Benjamin H. Bevier, *Ulster.*
" Manning Kelley, *Steuben.*
" Onesimus Mead, *Madison.*
" John Drake, *Otsego.*
" Elbert Curtiss, *Tompkins.*

Sundry Lists of Officers and copies of By-Laws of County Medical Societies were received. Dr. Pennell also presented a number of copies of Dr. Manley's Address before the New-York City and County Medical Society:—which were all referred to the Committee of Publication.

The following donations to the Prize Fund were received from County Medical Societies:

From Kings county,..	$2 00	From Madison county,	$3 00
" Chenango,.....	3 00	" Albany,.....	5 00
" New-York,....	5 00	" Broome,.....	3 00
" Cayuga, ...	5 00	" Saratoga, ...	3 00

* Took their seats on the second day.

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From Tompkins, ...	3 00	From Schoharie,.....	3 00
" Genesee, ...	3 00	" Delaware, ...	2 00
" Herkimer,.....	5 00	" Ontario,.....	2 00
" Oneida, ...	5 00	" College of Phys.	
" Columbia, ...	5 00	" & Sur., Geneva,	3 00
			$60 00

Dr. Gray stated that the Medical Society of the County of N. York, on motion of John Stearns, M. D., had unanimously voted the sum of $20 to be paid annually to the prize fund of the State Society.

The Censors of the Western District reported that they had examined and licensed the following gentlemen, to wit:

1837. August 30. Silas James, M. D., *Rhode-Island.*
Morgan Lewis, M. D., *Ohio.*
John B. Pride, *New-Hampshire.*
Edwin P. Healy, *Onondaga Co. N. Y*
1838. January 22. Samuel M. Farnam, do
Henry E. Cruttenden, *Dist. Columbia.*
Ambrose Conkey, *Chemung Co.*
Ira Goodrich, *Wayne Co.*
Geo. Norton, *Steuben Co.*

The fees, (excepting the sum of twenty dollars in the hands of Dr. H. H. Bissell, one of the Censors,) have been received by the Senior Censor, and are subject to the draft of the Treasurer. LAKE J. TEFFT, *Sen. Cen.*

The Censors of the Eastern District reported that they had examined and licensed,

Edwin Griffin, a graduate of *Jefferson Coll. Penn.*, and
William Kimber, of *Geneva, Ontario Co.*

And that the fees, twenty dollars, are paid into the hands of the Secretary. JON. EIGHTS, *Sen. Cen.*

The Censors of the Southern District reported that they had examined and licensed the following:

1837. March 2. David Perry.
1837. March 2. Walter Hughson.
April 15. Homer Bostwick.
" 17. Philo H. Wildman.
" 20. Samuel Marsh.
" 24. Solomon Heine, and
Dr. Henry F. Spier, of *Boston, (Mass.)*

The fees for the diplomas are herewith transmitted, amounting to seventy dollars. JAMES R. MANLEY, *Sen. Cen.*

Drs. Pratt, Bevier and Mead were appointed a committee to wait upon the Speaker of the Assembly, to request the use

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of their Chamber, to-morrow afternoon, at half past three o'clock, for the delivery of the President's Address: who reported soon after that they had attended to that duty, and that the request was granted.

The Treasurer of the Medical Society of the State of New-York reported the following as the state of the funds the 6th day of February, 1838.

By balance in the hands of the Treasurer, 7th Feb. 1837, agreeable to the report of the committee appointed to examine the Treasurer's accounts,....	$142 87
1837, Feb. 14. By cash by the hands of Dr. Thos. Spencer, from Dr. L. J. Tefft, for diplomas granted by the Censors of the West. District,	60 00
Feb. 24. By Dr. James R. Manley's check on the Chemical Bank, N. Y.	120 00
Aug. 23. By cash from Dr. Joel A. Wing, late Secretary, being the amount of donations to the Medical Prize Fund, ...	100 00
	$422 00

The expenditures are shown by the following accounts and vouchers, for the year 1837.

Feb. 17. To cash pd. to the proprietors of the Albany Daily Advertiser for publishing notice of the meeting of the Society Feb. 3 and 4, 1837,.....	$1 63
Feb. 24. To cash pd. to the proprietors of the Albany Evening Journal for publishing notice of the meeting of the Society, Feb. 3 and 4, 1837,.....	1 37
May 13. To cash paid Rawson Packard for engraving plate for Certificate of Membership, of this Society, ...	40 00
May 16. To cash paid to Solomon Hays for three days' services, attending the session of the Society, Wood, Stationery, Candles, 7 yds. crape, ...	15 50
July 20. To cash paid J. Fisher for 500 impressions of coloured plates of the eye,.....	14 00
Aug. 23. To cash paid E. W. & C. Skinner, for printing 300 circulars of Comitia Minora, 300 copies of Dr. McNaughton's Address, 30 do. of Dr. Bacon's Report of Tioga co., and 100 copies of Transactions No. 2, Vol. III.....	186 00
March 4. To cash paid on draft drawn by B. W. McCready, M. D., author of Prize Dissertation on	

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the Influence of Trades, Professions and Occupations in the United States, in the Production of Disease,.....		50 00
		$308 50
Amount of balance 1837,.....	$142 87	
Amount of moneys received 1837,.....	280 00	
Amount of expenditures, 1837,.....	308 50	
Leaving a balance this day in the hands of the Treasurer of	114 37	

All which is respectfully submitted.

PLATT WILLIAMS, *Treas.*

The following resolution was offered by Dr. Spencer and adopted.

Resolved, That it be recommended to the County Medical Societies, that they respecetively publish, after their annual meetings, a list of the officers and members of each, with their residence, and forward a paper containing such list to the Secretary of this Society.

Resolved, That a copy of the Abstract of the proceedings of this Society be forwarded by the Secretary to each member and delegate of the State Medical Society, and to the President or Secretary of each County Medical Society.

The following communication was received from the Onondaga Co. Medical Society.

"*Resolved*, That in the present matured and elevated state of the medical profession, this Society deem the term of study as prescribed by our laws too short; that our delegate to the State Society be requested to lay the subject matter of this resolution before the latter Society at its next annual meeting; and to use his influence to procure a petition to the Hon. Legislature, praying for an extension of the term of medical study *one year*."

The above resolution was referred to a committee consisting of Drs. Tefft, Spencer and Bay.

The following resolution was offered by Dr. Goodsell and adopted.

Resolved, That a committee of three be appointed to submit the following question to the Attorney General.

Is a Diploma conferring the degree of Doctor of Medicine, by a college out of this State, upon a student, in any case a license to practice physic or surgery in this State?

Which was referred to a committee consisting of Drs. Goodsell, Eights and Tefft.

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The following communication was received from the Chenango County Medical Society, and referred to a committee, consisting of Drs. Willard, Frary and Richards.

Extracts from the Proceedings of the Chenango County Medical Society. October, 1837.

The committee to whom were referred the resolutions adopted by the Society at its last meeting, on the subject of a more general extension of Vaccination,

REPORT:

That the occasional irruption of the small pox, at different localities throughout the state, is an evil that calls for prompt and efficient preventive measures.

Your committee are of the opinion, that the only effectual means to compass an object of so great importance, is by some legislative action, which shall induce, if possible, or compel, if necessary, every individual inhabitant of the state, to make use of the well-known means of protection against the invasion of the disease.

Although the philanthropist has pointed to the horrible ravages of the small pox, and urged upon mankind to take the necessary precautions to prevent its attacks; and although the preventive effect of vaccination has been tested by thousands; yet certain it is, that there are many, very many, who hold it in light esteem, and who not only refuse to protect themselves and their families, but actually use their influence to prevent others from doing so.

When the vaccine disease was first introduced, and being a subject of investigation with the learned, the public mind became enlisted in the enquiry, and the novelty of the subject, superadded to the untiring exertions of many engaged in the experiment, (for experiment it was,) made it comparatively easy to extend the influence of the disease, and hence it was eventually, more generally diffused through all intelligent communities then, than at the present period. But now, when almost every section of the world has been partially protected; when the extensive spread of the small pox has been arrested, and we hear no more of cities depopulated, and countries laid waste by its devastating influence; it appears that in proportion as its ravages have been stayed, and the consequent fears of mankind have abated, we have forgotten the source whence the blessing has flowed, and have neglected the only means of security.

It seems nevertheless, at this present time, that no one who can present any claims to intelligence, doubts the prophylactic influence of the vaccine, or questions its almost complete effi-

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cacy to prevent small pox, and yet a great proportion of our citizens are entirely unprotected, and the community are consequently, daily exposed to the irruption of the disease.

Of this fact the experience of a few past years bears ample testimony. In the year 1831, for instance, the small pox appeared in several places within the limits of this county, (and perhaps spontaneously, for the most diligent enqiry failed to trace it in some cases to a foreign source,) and during the last winter the county of Cortland, particularly, was visited quite extensively with it.

With a view of preventing the spread of the disease, some European governments have passed legislative enactments, compelling their citizens to become protected; nor has our own national government been entirely unmindful of the importance of the subject; but so far as is known by your committee, the only effectual aid that has ever been given by Congress, aside from a mere countenance of the matter, was, by authorizing a national vaccine agent, resident at Baltimore, to frank and receive, free of postage, all communications in relation to vaccination. This project was found, however, on trial, to be totally inadequate, inasmuch as it did not render it incumbent on any individual to become protected, but only pointed out a manner in which vaccine matter could be procured free of postage, simply by enclosing a comfortable fee to the agent.

Experience has proved that the question is not, "*How* shall the vaccine matter be procured?" but, "How shall the people be induced to employ it for their own safety, and the safety of community?"

It seems to be conceded that all civilized nations have ample power to enact sanitary laws for the protection of their citizens, against the introduction and spread of all infectious diseases. Hence sundry codes of quarantine regulations figure upon the statute books of all countries, and hence all the pompous array of health officers, boards of health, resident physicians, &c., which make so imposing a display in all our cities and seaports. Now your committee are utterly unable to comprehend how it is that legislatures have power to take all these precautions to prevent the introduction and spread of disease, and have not sufficient authority to institute regulations to prevent the actual generation and development of it.

Your committee are not aware that any legislative action has ever been had on the subject of vaccination in this state, nor do they know that the subject has ever been brought before the Legislature in such a way as to elicit any action thereon.

Your committee are of opinion that the subject is one of vi-

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tal importance to the people, and that therefore it is of consequence to take such steps in the premises as shall induce the Legislature to consider the subject with that candor and patience, which one of its magnitude deserves, and to take such measures as shall conduce to the protection of all citizens from so dreadful a scourge as the small pox.

As to the question of what measures are to be taken to effect this object; your committee beg leave still further to report, that in their opinion, it is possible that a system for the general diffusion of vaccination, may in some way be engrafted on our common school law.

Each child, before participating in the bounty of the state, may be subjected to vaccination; or, the trustees of each school district may be required, once in a given number of years to employ a competent agent to vaccinate all within their respective districts, — levy a tax to defray the necessary expenses, — report the number vaccinated, &c.; or this duty might devolve on the commissioners of common schools, and the expenses be paid by the town.

Perhaps, too, it might have a good effect, if the marshals, at the different periods of taking the census of the people, were required to enumerate the protected, either by vaccine or small pox.

With these views, your committee present to the Society for their consideration, the following resolution, viz:

Resolved, That a committee of three be appointed to draft a memorial to the honorable the Legislature, praying the passage of a law that shall embrace the objects set forth in the foregoing report.

(Signed) A. WILLARD,
W. D. PURPLE,
E. CORNELL,
Committee.

Your committee beg leave to append to this report, by way of note, that, in their own individual opinion, if, at any time, the true vaccine matter, should be unfortunately lost, (which, by the way, they do not consider very probable,) it may be without doubt speedily reproduced, whenever the small pox makes its appearance; — simply by inoculating the cow with the variolous matter. They are led to this opinion from a knowledge of certain experiments, which have been made in this county, under their own eyes, by members of this society; and from which it appears, that matter procured in this way, produces a disease in the human subject, which is not to be distinguished from the vaccine procured from other sources, and which is, as they believe, equally efficacious in preventing the small pox.

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Your committee do not ask this Society to endorse this opinion for them: — they only throw out the remark, in order to bring the subject up for further investigation and experiment, whenever opportunity shall offer.

On motion, the foregoing report and resolution were unanimously adopted.

Resolved, That the proceedings of the Society in relation to vaccination, be laid before the State Medical Society.

D. M. WAKELY, *Sec'y.*

Dr. Spencer from the committee on the Treasurer's Report, reported that they had examined the same, with its accompanying vouchers, and find it correct.

Adjourned until to-morrow morning, 11 o'clock.

WEDNESDAY, FEB. 7th, 11 o'clock, A. M.

The Society met pursuant to adjournment.

Present,—The President and a quorum of the members.

The following communication from the Saratoga County Medical Society, was offered by Dr. Tibbitts:

The Saratoga County Medical Society, aware of the increased facilities at present offered for the admission of members to the practice of physic and surgery:

Resolved, That this Society deem the continuance of the office of County Censor no longer necessary, and that our delegate be directed to bring the subject before the State Medical Society at its next meeting.

Which was read and referred to a committee, consisting of Drs. Tibbits, Spencer and Bay.

The committee appointed to obtain the opinion of the Attorney-General, submitted the following written opinion of that officer, which was read and ordered to be printed in the proceedings of this Society.

"*Resolved*, That a committee of three be appointed to submit the following question to the Attorney-General: *Is a diploma conferring the degree of Doctor of Medicine, by a college out of this state, upon a student, in any case, a license to practise physic or surgery in this state?*"

In my opinion the above question should be answered in the negative.

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A person may be authorised to practise physic and surgery in this state in several ways:

1. By receiving a license for that purpose from one of the incorporated Medical Societies in this state. (1 R. S., new ed., 450, § 16.)

   A student who has pursued medical studies for the proper term, may be admitted to an examination by a Medical Society. (1 R. S., new ed., 449, § 8.) The regular term is four years, but an allowance, not exceeding one year, may be made. (§ 9.)
2. By receiving the degree of M. D. from the Regents of the University of this state. (1 R. S., new ed., 450, § 16.)

   They may grant such degree to one who has pursued medical studies for three years, and attended two complete courses of lectures, &c. (§ 12.)
3. By being duly authorised to practice medicine by the laws of some other state or country, and having a diploma from a medical college in such state or country. (1 R. S., new ed., 450, § 16.)

   But such person must be examined and licensed by the censors of the State Medical Society. (Laws 1836, p. 301, § 1.)
4. By receiving the degree of M. D. from Geneva College, or the University of New-York, after pursuing the study of medicine for at least three years, &c. (1 R. S., new ed., 450, § 22: Laws 1817, p. 17, § 1.)

I am not aware of any other mode, by which, as the law now is, a person can be duly licensed to practice physic or surgery in this state.

Albany, Feb. 7, 1838.

SAML. BEARDSLEY.

The committee to whom was referred the communication from the Onondaga County Medical Society, made the following Report:

The committee to whom was referred the subject of recommending to the Legislature an alteration of the Medical Law, in relation to the term of study of medical students in this state, beg leave to

REPORT:

That they have had the matter under mature consideration, and are of opinion that it is inexpedient at present to memorialize the Legislature upon this subject.

L. J. TEFFT, *Chairman.*

The following resolution was offered by Dr. Eights, and adopted:

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Resolved, That a committee be appointed to report to the Society, subjects for *prize questions.*

The committee consists of Drs. Eights, Webster and Pratt.

Dr. John F. Gray read a communication on the subject of "Prolapsus of the Uterus."

Resolved, That the thanks of this Society be presented to Dr. Gray for his communication, and that it be referred to the committee of publication.

Dr. Gray also presented a specimen of Dr. Hull's apparatus termed *Utero-Abdominal Supporter.*

Resolved, That the thanks of this Society be presented to Dr. Gray for his donation.

Resolved, That Drs. Pierce, Wing and Benedict, be a committee to examine into the merits of the above invention of the late Dr. Amos G. Hull, with reference to its originality as a surgical expedient, and its claim as a substitute for the use of pessaries.

The committee to whom was referred the communication from the Chenango County Medical Society, on the subject of vaccination, made the following report; which was accepted and referred to the Comitia Minora.

That they fully agree with the communication submitted to them, in its general principles, and are perfectly convinced, not only of the propriety, but of the actual necessity that exists for some legislative action in relation to the subject of vaccination; so far at least as to enable the different towns in the state to institute such means for the protection of their citizens from the small pox, as may, from time to time, be deemed expedient.

They therefore beg leave to present, for the consideration of the Society, the following Resolutions, viz:

Resolved, 1. That it is expedient that a law should be enacted by the State Legislature, authorizing the several cities, villages and towns to establish boards of health, having special reference to the protection of the community against the invasion and dissemination of small pox.

2. That the Legislature be requested to direct the marshals, when taking the census of the state, to enumerate those persons who have been protected against small pox, either by vaccination or otherwise.

3. That a committee be appointed on behalf of this Society,

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to memorialize the Legislature upon this subject, and to procure, if possible, their immediate action in the premises.

A. WILLARD,
R. G. FRARY,
J. W. RICHARDS,
Committee.

Adjourned to 3 o'clock, P. M.

FEB. 7, 3 o'clock, P. M.

The Society met pursuant to adjournment.

Present,—The President and a quorum of members.

The Minutes of the morning session were read, amended, and approved.

The Society then proceeded to the Assembly Chamber, to hear the President's Address.

After the Address—having returned to their rooms—the following Resolution was offered by Dr. Spencer, and unanimously adopted.

Resolved, That the thanks of this Society be presented to Dr. James McNaughton for his able and interesting Address, and that a copy be requested for publication.

The Society then proceeded to the election of officers for the ensuing year.

On canvassing the ballots, the following gentlemen were found to be elected:

DR. LAURENS HULL, *President.*
SUMNER ELY, *Vice-President.*
PETER VAN OLINDA, *Secretary.*
PLATT WILLIAMS, *Treasurer.*

CENSORS.

Southern District.
DR. EDWARD G. LUDLOW,
JOHN STEARNS,
JOHN F. GRAY.

Eastern District.
DR. JOEL A. WING,
JOSEPH W. RICHARDS,
PLATT WILLIAMS.

Middle District.
DR. E. B. BURROUGHS,
AUGUSTUS WILLARD,
D. D. PAGE.

Western District.
DR. LAKE J. TEFFT.
HENRY MAXWELL,
JOHN COATES.

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COMMITTEE OF CORRESPONDENCE.

Dr. JAMES R. MANLEY,	1st	District.
A. G. BENEDICT,	2d	do
ROBERT G. FRARY,	3d	do
WILLIAM TIBBITTS,	4th	do
THOMAS GOODSELL,	5th	do
AUGUSTUS WILLARD,	6th	do
LANSING BRIGGS,	7th	do
BRYANT BURWELL,	8th	do

The following gentlemen were elected as Permanent Members:

Dr. A. G. Benedict, *Dutchess.*
John McCall, *Oneida.*

The following gentlemen were elected as Honorary Members:

Daniel Oliver, *Hanover, N. H.*
William Tully, *New-Haven, Conn.*

The following were appointed the committee on *prize* questions and dissertations for the current year:

Dr. James McNaughton,
T. Romeyn Beck,
Jonathan Eights,
Robert G. Frary,
Eli Pierce.

The following gentlemen were nominated as Permanent Members:

Dr. Lake J. Tefft, *Onondaga.*
John F. Gray, *New-York.*
William Tibbitts, *Saratoga.*
Joseph W. Richards, *Washington.*
Nicholas B. Harris, *Rensselaer.*
John Coates, *Genesee.*

The following were nominated as Honorary Members:

Dr. Matthew Stevenson, *Washington Co.*
John Rolph, *Upper Canada.*
Josiah K. Skinner, *Niagara.*
Frederick May, *Washington City.*

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Dr. Pierce, from the committee appointed to examine Dr. Hull's apparatus, termed the Utero Abdominal Supporter, reported; which report, after some debate, was referred back to the committee.

A communication was received through the President, from the committee of the N. Y. State Temperance Society, inviting the members of this Society to attend their session in this city to-morrow evening.

Dr. Eights, from the committee on Prize Dissertations, reported, as follows:

The committee appointed on the subject of Prize Dissertations —

REPORT:

That as no essay has been received on the subject proposed last year, they recommend that the same be continued for the present year, and the like sum of money offered for the best dissertation on that subject.

J. EIGHTS, *Chairman.*

Adjourned to 10 o'clock to-morrow morning.

THURSDAY, FEB. 8th, 10 o'clock A. M.

The Society met pursuant to adjournment.

Present,— Dr. Hull, President, and a quorum of the members.

The minutes of the last meeting were read and approved.

The committee appointed to take into consideration the resolution from the Saratoga County Medical Society, abolishing the office of County Censor, reported; which report was adopted, and is as follows:

The committee appointed to take into consideration the Resolution offered by the Saratoga County Medical Society, "for abolishing the office of County Censor," beg leave to

REPORT:

That they deem it inexpedient for the State Medical Society to express any opinion on the subject, and that the several County Societies be requested to communicate with the State

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Medical Society, before its next meeting, in order that it may be fully prepared to act on the subject.

WM. TIBBITTS,
WM. BAY,
T. SPENCER.

The following resolution was offered and adopted:

Resolved, That a committee be appointed to investigate the subject of vaccination, its value as a preventive of small pox, the reason and extent of its failure, and the various sources from which the vaccine virus may be obtained, and report at the next annual meeting of this Society.

That committee consists of Drs. Beck, Eights and McNaughton.

Dr. John F. Gray offered his resignation as Censor, which was accepted.

Whereupon, the Society proceeded to ballot for a Censor to fill the vacancy. On counting the ballots, it appeared that Dr. JOHN C. CHEESEMAN was duly elected.

The following resolutions were offered, and unanimously adopted:

Resolved, 1. That this Society have heard with deep regret and sorrow, of the loss which has been sustained by the Medical profession, and by the country, in the death of the late PHILIP SYNG PHYSICK, M. D., of Philadelphia, an honorary member of this Society.

2. That this Society deeply sympathize with the medical profession of this country, and of the city of Philadelphia in particular, who in him mourn the loss of a father, a brother, and a friend.

3. That a copy of these resolutions, signed by the President and Secretary, be transmitted to the family of the deceased, and to the Philadelphia Medical Society, of which he was long the honored President.

The following preamble and resolution were offered and unanimously adopted:

Whereas, This Society have learned with deep regret of the death of Dr. ELI IVES, of Connecticut, an honorary member of this Society; and of Dr. ALFRED T. MAGILL, a distinguished member of the University of Virginia, and an honorary member of this Society:

Resolved, That the President of this Society be directed to convey to the families of the deceased the condolence of this Society, and its sympathy in their bereavement.

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On motion, it was

Resolved, That in the absence of the President, the Senior Censor of the Eastern District and the Secretary be a committee to audit accounts.

The committee on Dr. Hull's apparatus again reported; which report, after being amended, was adopted, and is as follows:

The committee charged with examining into "the merits of the late Dr. Amos G. Hull's invention, entitled the Utero Abdominal Supporter, with reference to its originality as a surgical expedient, and its claims as a substitute for the use of pessaries:"

RESPECTFULLY REPORT:

That they have had the same under consideration, and from the certificates of eminent surgeons who have made ample trials of this Supporter, have no hesitation in recommending it to the profession, and expressing their belief that it will, in most cases, supercede the use of pessaries. And from the facts, so far as there is testimony before the committee, there is reason to believe that the late Dr. Amos G. Hull was the original inventor.

E. PIERCE,
A. G. BENEDICT,
JOEL A. WING.

The following gentlemen were appointed the publishing committee: Drs. Beck, Wing, McNaughton and the Secretary.

On motion of Dr. James McNaughton, it was

Resolved, That the publications of the Society be continued in the same form as heretofore.

The following Resolutions were offered and adopted:

Resolved, That the committee of Correspondence of this Society, and the delegates from each County Society, be requested to use their influence to procure subscribers to the Transactions, and also communications for the committee of publication.

Resolved, That such County Societies as have not been supplied with Vols. II. and III. of the Transactions be furnished with one copy of the same, reserving twelve copies for the use of this Society.

Resolved, That the County Societies be requested to forward copies of communications made to them upon medical subjects, from year to year, for publication in the Transactions of this Society, when deemed expedient by the Committee of Publication.

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Resolved, That the Comitia Minora renew the application to the Legislature as in the last year, in respect to the conferring of the honorary degree of Doctor of Medicine.

Adjourned.

The seats of the following Delegates become vacant on the 1st of February, 1839.

New-York, Orange, Delaware, Onondaga, Montgomery, Rensselaer, Genessee, Seneca, Allegany, Broome, Franklin, Livingston, Monroe, Oswego, Yates.

II. LIST OF OFFICERS OF COUNTY MEDICAL SOCIETIES — 1838.

Albany County.

Dr. James P. Boyd, President.
Peter McNaughton, V. Pres.
Abraham Groesbeck, Secretary.
Henry Greene, Treasurer.
D. McLachlan, Librarian.

Censors—Dr. B. P. Staats,
Alden March,
Henry Van Olinda,
L. G. Warren,
Samuel Dickson.

Dr. P. Van Olinda, Delegate.

Annual Meeting, Second Tuesday in January.

Allegany County.

Dr. Richard Charles, President.
A. Dana, V. Pres.
C. D. Robinson, Secretary.
E. A. Potter, Treasurer.

Censors—Dr. Gilmore,
Robinson,
McCall,
J. Wellman,
E. A. Potter.

Dr. Seth H. Pratt, Delegate.

Broome County.

Dr. P. B. Brooks, President.
S. West, V. Pres.
D. S. Hand, Secretary.
Tracy Robinson, Librarian.

Censors—Dr. Burr,
S. French,
N. Davis.

Dr. P. B. Brooks, Delegate.

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Cayuga County.

Dr. H. D. Eldridge, *Port Byron*, Pres.
Saml. Gilmore, *Fleming*, V. Pres.
Stephen Mosher, *Auburn*, Secretary, Pro tem.

Censors—Dr. F. H. Hamilton, James Clark, John E. Todd, N. B. Eldridge.

Dr. Lansing Briggs, *Auburn*, Delegate.

Annual Meeting, First Thursday in June.

Chenango County.

Dr. Austin Rouse, *Oxford*, Pres.
Edward Connell, V. President.
Daniel M. Wakeley, *North-Norwich*, Secretary.
William G. Sands, *Oxford*, Treas.

Censors—Dr. Harvey Harris, Charles H. Mitchell, James Thompson, Daniel M. Wakeley.

Dr. Augustus Willard, Delegate.

Annual Meeting, Second Tuesday in October.

Columbia County.

Dr. John Van Derpoel, President.
Sam'l. R. McClellan, V. Pres.
Geo. H. White, Treasurer and Librarian.
Robert Rossman, Secretary.

Censors—Dr. Robert G. Frary, John M. Pruyn, Geo. W. Cooke, Henry A. Heermans, Robert Clow.

Dr. John McClellan, *Johnstown*, Delegate.

Annual Meeting, First Tuesday in October.

Delaware County.

Dr. Philip Bassett, *Colchester*, Pres.
Calvin Howard, *Stamford*, V. President.
Ebenezer Steele, *Delhi*, Sec'y.
Henry Cady, *Meredith*, Treasurer.

Censors—Dr. Calvin Howard, Ebenezer Steele, Ferris Jacobs, *Delhi*, H. K. Willard, *Kortright*, Marcus T. Peak, *Andes*.

Dr. Ferris Jacobs, *Delhi*, Delegate.

Annual Meeting in May.

Dutchess County.

Dr. William Thomas, President.
Smith, V. President.

Censors—Dr. Theophilus Nelson, John Cooper,

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Dr. Hurd, Secretary. Dr. C. Canfield,
John Barnes.

Dr. A. G. Benedict, Delegate.

Genesee County.

Dr. James A. Billings, *Batavia*, Pres.
Guy R. Shepherd, V. Pres.
John Coates, Treasurer.
Holton Ganson, Secretary.

Censors—Dr. James A. Billings,
John Coates,
Holton Ganson,
L. B. Coates,
Wm. H. Webster.

Dr. John Coates, Delegate.

Annual Meeting, Second Tuesday in January.

Kings County.

Dr. Adrian Vandeveer, *Flatbush*, President.
John Fanning, *Brooklyn*, V. Pres.
I. S. Thorn, *Brooklyn*, Sec'y.
F. W. Hurd, Treasurer.

Censors—Dr. Geo. Marvin, *Brooklyn*,
I. S. Thorn, do
I. J. Rasselye, do
I. E. Dubois, *New Utrech*,
Geo. Cox, *Williamsburg*.

Dr. Thos. B. Downing, *Brooklyn*, Delegate.

Annual Meeting, Second Monday in April.

Madison County.

Dr. A. G. Purdy, *Eton*, President.
Messenger, *Petersboro'*, V. Pres.
Milton Barnett, *Eton*, Sec'y.
O Mead, *Nelson*, Treasurer.

Censors—Dr. Mason,
I. S. Douglass,
O. Mead,
Alvin Foord,
E. B. Burroughs.

Dr. E. B. Burroughs, *Lebanon*, Delegate.

Annual Meeting, July.

Niagara County.

Dr. Eli Hurd, President.
B. L. Delano, V. President.
H. Maxwell, Secretary.
H. Gillis, Auditor.
A. R. Chase, Treasurer.

Censors—Dr. J. R. Skinner,
H. Maxwell,
B. L. Delano,
O. Hill,
Wm. McCollum.

Dr. H. Maxwell, Delegate.

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Onondaga County.

Dr. Herman Van Deusen, *Tully*, Pres. *Censors*—Dr. D. T. Jones,
L. J. Tefft, V. President. David Bingham,
P. C. Sampson, *Syracuse*, Sec'y. N. R. Tefft,
Geo. Hooker, Treasurer. Matthew Williams,
Geo. W. Richards.

Dr L. J. Tefft, Delegate.

Rensselaer County.

Dr. John Wheeler, *Troy*, Pres. *Censors*—Dr. C. S. I. Goodrich,
Platt Burton, V. President. R. L. Bryan,
John Clapp, Recording Sec'y. Thos. C. Brinsmade,
Charles Smith, Cor. Secretary. Daniel Haynes,
James Thorn, Treasurer. John Van Namel.
John Wright, Curator.

Dr. Nicholas B. Harris, Delegate.

Saratoga County.

Dr. Oliver Brisbin, President. *Censors*—Dr. David Dorr,
Calvin Preston, V. President. William Tibbitts,
Josiah Palling, Secretary and Samuel Freeman,
Treasurer. Eliphalet St. John,
Josiah Palling.

Dr. William Tibbitts, Delegate.

Annual Meeting, Last Wednesday in May.

Schoharie County.

Dr. Moses Lawyer, President. *Censors*—Dr. P. S. Swart,
Barent B. Sabelis, V. President. C. H. Van Dyck,
C. H. Van Dyck, Treasurer. D. H. Kibbe,
S. B. Wells,
William Lamont.

Dr. Julius Rowley, *Cobleskill Centre*, Delegate.

Annual Meeting, First Tuesday in October.

Tompkins County.

Dr. P. A. Williams, *Enfield*, Pres. *Censors*—Dr. John Stevens,
G. W. Phillips, V. President. Wm. Bacon,
John Stevens, Treasurer. G. W. Phillips,

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Dr. William Bacon, *Ithaca*, Sec'y. Dr. O. C. Comstock, S. E. Clark.

Dr. DANIEL D. PAGE, *Dryden*, Delegate.

Annual Meeting, First Wednesday after the Third Monday in May.

III. LIST OF LICENTIATE'S OF THE MEDICAL SOCIETY OF THE STATE OF NEW-YORK.

Continued from Vol. III. of the Transactions; Appendix, p. 20.

Date of Diploma.		
1836.	Mr. Marcellis,	*New-York.*
	Jesse Delano Jr.,	"
	John Johnston,	*England.*
	Mr. Trivett,	*Dutchess.*
	Peter M'Naughton,	*Montgomery.*
	Ephraim Case.	
	Samuel M. Crawford.	
	Thomas B. Lacey,	*Connecticut.*
	Moses D. Van Pelt.	
	William H. Maxwell.	
	George Adams.	
	Gustavus Adolphus Sabine.	
	Edward Q. Sewell, M. D.,	*Canada.*
	John H. Trotter,	*Albany.*
	Lambert Whitney,	*Cattaraugus.*
	D. S. Olin,	*St. Lawrence.*
	William L. Hamilton,	*Tompkins.*
	Enoch T. Campbell,	*Otsego.*
	Daniel M'Ewen,	*Pennsylvania.*
	J. W. Van Every,	*Monroe.*
1837.	David Perry.	
	Walter Hughson.	
	Homer Bostwick.	
	Philo H. Wildman.	
	Samuel Marsh.	

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	Solomon Heine.	
	Henry F. Spier,	*Boston.*
	Silas James, M. D.,	*Rhode-Island.*
	Morgan Lewis, M. D.,	*Ohio.*
	John B. Pride,	*New-Hampshire.*
	Edwin P. Healy,	*Onondaga.*
	Edwin Griffin,	*Pennsylvania.*
	William Kimber,	*Ontario.*
1838.	Samuel. M. Farnam,	*Onondaga.*
	Henry E. Cruttenden,	*Dist. Columbia.*
	Ambrose Conkey,	*Chemung.*
	Ira Goodrich,	*Wayne.*
	George Norton,	*Steuben.*

IV. CLASSIFICATION OF COUNTIES.

VACANT.	VACANT.	VACANT.	VACANT.
Feb. 1, 1839.	*Feb.* 1, 1840.	*Feb.* 1, 1841.	*Feb.* 1, 1842.
New-York,	Greene,	Albany,	Westchester,
Orange,	Dutchess,	Oneida,	Columbia,
Delaware,	Jefferson,	Cayuga,	Ulster,
Onondaga,	Ontario,	Otsego,	Madison,
Montgomery,	Essex,	Saratoga,	Herkimer,
Rensselaer,	Lewis,	Schenectady,	Chenango,
Genesee,	Schoharie,	Tioga,	Washington,
Seneca,	Niagara,	Cattaraugus,	Clinton,
Allegany,	Warren,	Richmond,	Suffolk,
Broome,	Chatauque,	Rockland,	St. Lawrence,
Franklin,	Orleans,	Steuben,	Cortland,
Livingston,	Putnam,	Sullivan,	Erie,
Munroe,	Queens,	Tompkins,	Hamilton,
Oswego,	College of P. & S.	Chemung,	Kings,
Yates, 15.	New-York.	College of P. & S.	Wayne,
	Med. Faculty of	Fairfield, 15.	Med. Fac. of N.Y.
	Geneva. Col., 15.		City University, 16

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V. *Extract from the Proceedings of the New-York Medical Society, at its Annual Session in February,* 1833.

Dr. M'Call offered the following resolution, with its preamble, which were adopted:

Whereas a great diversity of opinion exists amongst the medical profession of our state, on the powers of Medical Societies as to the admission of members; and whereas a perfect understanding of said law is important to the harmony and usefulness of the profession,—Therefore,

Resolved, That a committee be appointed to obtain the opinion of the Attorney-General upon the same.

Resolved, That Drs. M'Call, Burwell and Taylor, be said committee.

Dr. M'Call, from the committee appointed to wait on the Attorney General, reported the following opinion of that officer:

ALBANY, February 6, 1833.

Drs. M'Call, Burwell and Taylor,

Gentlemen—In pursuance of the request of the Medical Society of this State, communicated through you, I have given a brief consideration to the powers of the County Medical Societies, relating to the admission and expulsion of members.

The first act authorizing the incorporation of Medical Societies, was passed in 1806. (4 Web. 537.) This act was revised and re-enacted on the 10th of April, 1813, and is still in force. (2 R. L. 219. 3 R. S. 304.) This act, after reciting that "well regulated Medical Societies have been found to contribute to the diffusion of true science, and particularly the knowledge of the healing art," provided that a society might be formed in each county, by the voluntary association of not less than five physicians and surgeons, and the choice of certain officers. By the 14th section of the act, the societies were impowered at their annual meetings, to make by-laws and regulations, relative to the affairs, concerns and property of said societies, and relative to the admission and expulsion of members, and relative to donations or contributions.

It has never been doubted that the act of 1813 gave the several societies ample discretion, as well in relation to the admission as the expulsion of members. They were not compelled, without their consent, to associate either with licensed quacks, or men of bad moral character.

But it has been said that title 7, of chapter 14, of the first

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part of the Revised Statutes, (1 R. S. 452,) has introduced a different rule on this subject. That inasmuch as every physician is required to apply for admission into the Medical Society of his county, on pain of the forfeiture of his license, the society can have no right to reject him on the ground of his moral or professional character; and that inasmuch as provision is made for the expulsion of members by the judges of the county courts, the society can have no power over its members, other than such as this statute has provided.

On both of these points, I entertain a different opinion from the one above mentioned. The Revised Statutes do not profess to repeal the act of 1813, or any part of it. Both acts relate to the same subject, and should be construed together; and it is believed that they may be interpreted in such a manner as to give effect to all their provisions.

First. Every physician, not already a member, must apply for admission into the society of his county, on pain of the forfeiture of his license.

Second. The society, in pursuance of its by-laws and regulations, may either admit or reject the applicant. If rejected, he loses nothing but the benefits which he might have derived from the association. His license is not forfeited.

Third. The society, in pursuance of its by-laws and regulations, may either expel a member, or may deliver charges to the district attorney; and the member may be expelled from the society by the judges of the county court. In the first case the member loses nothing but the benefits of the association: in the last case he may be forever disqualified from pursuing his profession, or be suspended from practice for a limited period.

This opinion will derive some support from the decision of the Supreme Court, in the case of *The People* against *The Medical Society of the County of New-York.* (3 Wend. 426.)

I am, with great respect,

Your obedient servant,

GREENE C. BRONSON.

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VI. *Abstract of the Proceedings of the* Medical Society of the State of New-York, *at its annual session in February*, 1839.

The Medical Society of the State of New-York met pursuant to statute at the Capitol in the city of Albany, on Tuesday the 5th of February, 1839.

PRESENT.

Dr. Laurens Hull, Permanent Member, *President.*
" Sumner Ely, do do *Vice President.*
" Peter Van OLinda, Delegate, *Albany, Secretary.*
" Platt Williams, Permanent Member, *Treasurer.*
" Samuel White, Permanent Member,
" John McCall, do.
" William Bay, do.
" Jonathan Eights, do.
" James R. Manley, do.
" T. Romeyn Beck, do.
" James McNaughton, do.
" Robert G. Frary, do.
" Joel A. Wing, do.
" William Horton, do.
" Harvey W. Doolittle, do.
" John McClellan, Delegate, *Columbia.*
" Thomas Goodsell, do. *Oneida.*
" Henry Maxwell, do. *Niagara.*
" Lansingh Briggs, do. *Cayuga.*
" E. B. Burroughs, do. *Madison.*
" Lester Green, do. *Herkimer.*
" Julius Rowley, do. *Schoharie.*
" Eli Pierce, do. *Greene.*
" William Tibbitts, do. *Saratoga.*
" Joseph W. Richards, do. *Washington.*

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The following gentlemen presented certificates as delegates from their respective county medical societies and took their seats accordingly.

Dr. Lyman Clary, *Onondaga*,
" William Horton, *Orange*.
" David L. Rogers, *Ontario*.
" Morgan Snyder, *Montgomery*.
" Waterman Ellsworth, *Chautauque*.
" Norman Eddy, *Seneca*.
" Patrick H. Hard, *Oswego*.
" Charles S. J. Goodrich, *Rensselaer*.
" James R. Manley, *New-York*.
*" Seth H. Pratt, *Allegany*.

Doctors Richards and Pierce were appointed a committee to wait on those members of the Legislature, who are members of the medical profession, and invite them to take seats with this society as honorary members.

The following gentlemen being present, were also invited to take seats with the society as Honorary Members.

Dr. Phineas Hurd, *President Cayuga Co. Med. Society.*
Dr. Harman Van Dusen, *Pres. Onondaga Co. Society.*
Dr. S. D. Hand of *Broome County*.

The following *Donations to the prize fund* were received from County medical societies.

Dr. Goodsell from	Oneida County,	.....	$5 00
Dr. Maxwell,	Niagara do.	.....	3 00
Dr. Green,	Herkimer do.	.....	5 00
Dr. Horton,	Orange do.	.....	5 00
Dr. McClellan,	Columbia do.	.....	5 00
Dr. Clary,	Onondaga do.	.....	5 00
Dr. Briggs,	Cayuga do.	.....	5 00
Dr. Eddy,	Seneca do.	.....	3 00
Dr. Snyder,	Montgomery do	.....	2 00
Dr. Hard,	Oswego, do.	.....	3 00
Dr. Ellsworth,	Chautauque do.	.....	5 00

* Took his seat the second day.

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Dr Burroughs,	Madison	do.	3 00
Dr. Rowley,	Schoharie	do.	3 00
Dr. Manley,	New-York	do.	20 00
Dr. Richards,	Washington	do	5 00
Dr. Van Olinda,	Albany	do.	5 00
Dr. Tibbitts,	Saratoga	do.	3 00
Dr. Goodrich,	Rensselaer	do.	5 00
			90 00

The Censors of the southern district reported as follows:

New-York, February 1, 1839.

The Censors of the southern district respectfully report, that during the last year they have examined and licensed the following persons, whose fees for the diplomas are herewith transmitted.

EDWARD G. LUDLOW, *Sen. Cen.*

1838.	March 15.	Isaac S. Smith, *Connecticut,*
	April 15.	Charles C. Allen, *New-York.*
	June 19.	Hugh Caldwell, *England.*
	" "	John Edward Smith, *New-York.*
	July 20.	Royal A Gaines, *New-York.*

The Censors of the Eastern District report that they have examined and licensed

Dr. Henry Gray and } *White Creek, Washington Co.*
" Henry W. Bell, }

both of whom have been practitioners in the state of Vermont, and licentiates under the laws of that state, also

Dr Myron Knowlton of *Greenbush, Rensselaer County.*

Dr. Stephen H. Colburn of *Ghent, Columbia County.*

Dr. Earl Loomis of *Frankfort, Herkimer County,* and formerly of Enfield, Connecticut.

JOEL A. WING, *Sen. Cen.*

The Censors of the Western District report that they have since their last report examined and licensed

1838. September 4th. Dr. Spencer, Ward *Vermont.*
" Dr. Thomas D. Morrison, *U. Canada.*

They have also examined and recommended for a license the following gentlemen, to wit:

1839. Jan. 22. Edward H. Laman of *Ontario County.*
Harvey L. Wilkins, *Chautauque.*
Chancy M. Drake, *Ontario.*
Henry Knapp, *Tompkins.*

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Absalom Townsend, *Steuben.*
William C. Cole. *Seneca.*

The fees (eighty dollars) have been received by the Senior Censor, and are subject to the draft of the Treasurer.

LAKE J. TEFFT, *Sen. Cen.*

Jan. 29, 1839.

The Censors of the State Medical Society for the Middle District, respectfully report, that they have examined and licensed during the last year

Dr. John Rolph of *Toronto, Upper Canada.*
Frederick Baker, of *England.*

The fee of twenty dollars is herewith transmitted together with the affidavit of Dr. F. Baker,

E. B. BURROUGHS, *Sen. Cen.*

Feb. 5, 1839.

Drs. Goodsell, Burroughs and Rowley, were appointed a committee to wait upon the Speaker of the Assembly and request the use of their chamber at half past 3 o'clock to-morrow, for the delivery of the president's address. The committee reported before the adjournment that they had attended to that duty and that the request was granted.

A communication was received from the Washington County Medical Society, containing its proceedings at its annual meetings in 1837 and 1838, which was referred to the standing committee on the by-laws of county medical societies.

Communications were received from the county societies of Rensselaer, Lewis, Chenango and Onondaga, disapproving of the abolition of the office of County Censor, and several delegates, reported verbally that the subject had been under consideration in their societies, and that in every instance they were also opposed to any change.

Dr. Goodrich also submitted a resolution passed by the Rensselaer County Medical Society stating as their opinion that the present term of medical study is too short, and requesting their delegate to bring the subject before the State Medical Ssciety and to use his influence to procure a petition from this society to the Legislature praying for an extension of the term of study one year — which was referred to a committee consisting of Drs. Manley, McCall and Eights.

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The following resolution was offered by Dr. Manley, and adopted:

Resolved, That a committee be appointed to enquire and report whether any, and if any, what alterations are necessary in relation to the powers granted to this society, and the different county societies, in respect to licenses in this state, and to present them as early as possible for consideration of the society.

Which was also referred to the committee just named consisting of Drs. Manley, McCall and Eights.

The Treasurer made the following report:

The Treasurer of the Medical Society of the state of New-York, respectfully submits the following, as the state of the funds 5th of February, 1839.

By balance in the hands of the Treasurer the 6th of February, 1838, agreeable to the report of the committee appointed to examine the Treasurer's accounts,.....	$114 37
1838, Feb. 6. By cash from Dr. Lake J. Tefft, senior censor of the Western District, for seven diplomas, granted by the censors of that district,.....	70 00
" Feb. 6, By Dr. James R. Manley's check on the Chemical Bank, New-York, for seven diplomas granted by the censors of the southern district, ...	70 00
" May 3, By cash from the Secretary for two diplomas granted by the censors of the eastern district, ...	20 00
" May 3, By cash from the Secretary, $60, being the amount received for the Medical Prize Fund,.....	60 00
	$334 37

The expenditures of the Society are shown by the following accounts and vouchers for 1838.

Feb. 20, To cash paid Hoffman & White publishers of the Albany Evening Journal, for advertising annual meeting of the Society, 1838,.....	$1 75
March 15, To cash paid to the proprietors of the	

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	Albany Argus for advertising annual meetings of the Society in the years 1834, 1837, and 1838,	3 75
March 29,	To cash paid to the assignee of the Albany Daily Advertiser for advertising notice of annual meeting of the Society, Feb. 1838,	1 65
April 9,	To cash paid to Warner and Boynton, for binding 12 vols. of the Transactions of the Society,	4 50
April 9,	To cash paid to John N. Boardman for three days' attendance on the Society at the annual meeting, February 1838, and furnishing one load of wood, candles stationery, &c.	11 12½
May 3,	To cash paid to J. Munsell, for printing 500 copies of the Transactions of the Society, vol. 4, part 1, eighty pages,	102 85
July 30,	To cash paid to Rawdon, Wright & Co. for printing twenty-five diplomas on parchment,	18 00
		$143 62½

Amount of balance, 1838,	$114 37
Amount of moneys received, 1838,	220 00
Amount of expenditures, 1838,	143 62½
Leaving a balance in the hands of the treasurer of	190 75

All which is respectfully submitted.

PLATT WILLIAMS, *Treasurer.*

Whereupon,

Resolved, That the Treasurer's report be referred to a committee, consisting of Drs. Frary, Pierce and Richards.

The following resolutions were offered by Dr. McNaughton, and adopted, and referred to a committee consisting of Drs. Rogers, Pierce and Briggs.

Resolved, That a committee be appointed to report to this Society at its present session,

1. Whether it will be for the interest of the medical profession, or of the community, that the number of medical colleges in this state should be increased at the present time.

2. If it be deemed expedient to establish more medical col-

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leges, what organization of such colleges would best promote the interests of medical education, and the honor of the medical profession.

The following works were received through Dr. J. V. C. Smith, of Boston, as a donation to the State Medical Society, from their author:

Memoire Medico-Chirurgiche del Dottor Placido Portal, vol. 1st, Palermo, 1836.

Trattato de Clinica Chirurgica de Placido Portal, Prof. &c. vol. 1st, Trapani, 1836.

On motion,

Resolved, That the thanks of this Society be presented to Prof. Portal for his valuable donation.

The Secretary presented the following as received for the Society.

A Catalogue of the Medical Graduates of Transylvania University, with an Appendix, containing a history of the school. Lexington, 1838.

The By-Laws of the Rensselaer and Seneca County Medical Societies, were received and referred to the standing committee on the by-laws of county medical societies.

Adjourned to 11 o'clock to-morrow morning.

FEBRUARY 6, 1839.

The Society met pursuant to adjournment.

The minutes of the last meeting were read and approved.

The committee on medical colleges and medical education, made the following report:

The committee to whom was referred the resolutions upon the subject of increasing medical colleges, and the best plan of organizing such colleges, beg leave to report, that they have considered the subject, and for want of sufficient time, ask permission to report by resolution.

Resolved, That in the opinion of this society, the increase of medical schools in this state, is not inconsistent with the true interests of the profession, *provided* such schools are placed under proper restrictions and responsibilities.

Resolved, That the subject of medical colleges and of medi-

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cal education, be referred to a committee of three, and that they be requested to make a full report at the next annual meeeting of this society.

DAVID L. ROGERS,
LANSINGH BRIGGS,
E. PIERCE,
} *Committee.*

Albany Feb. 5th, 1839.

Which report after some debate was laid on the table.

An invitation was received from the Albany Medical College, inviting the members of this society to visit their museum, and attend the lectures during their stay in this city, which was accepted.

The committee to whom was referred the Treasurer's report, reported that they have examined the same and find it correct and satisfactory.

ROBERT G. FRARY, *Chairman.*

Adjourned to half past 3 o'clock.

AFTERNOON SESSION, FEB. 6th.

The Society met at their rooms, and proceeded to the Assembly Chamber to hear the President's address.

Immediately on their return the following resolution was passed on motion of Dr. Frary.

Resolved, That the thanks of this society be presented to Dr. Hull for his interesting address and that a copy be requested for publication.

The Society then proceeded to elect their officers for the ensuing year.

Upon counting the ballots it appeared that the following gentlemen were elected.

LAURENS HULL, *President.*
SUMNER ELY, *Vice-President.*
PETER VAN OLINDA, *Secretary.*
PLATT WILLIAMS, *Treasurer.*

CENSORS.

Southern District.	*Eastern District.*
Dr. James R. Manley,	Dr. Joel A. Wing,
Edward G. Ludlow,	Jonathan Eights,
John C. Cheeseman.	Peter Wendell.

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Middle District.	*Western District.*
Drs. E. B. Burroughs,	Drs. Lansingh Briggs,
Patrick H. Hard,	Henry Maxwell,
John McCall,	Lyman Clary.

COMMITTEE OF CORRESPONDENCE.

Dr. Jno. C. Cheeseman, 1st DISTRICT.
" Wm. Horton, 2d do.
" Robert G. Frary, 3d do.
" Wm. Tibbitts 4th do.
" Thos. Goodsell, 5th do.
" Augustus Willard, 6th do.
" D. L. Rogers, 7th do.
" Henry Maxwell, 8th do.

Dr. Goodsell was appointed chairman of said Committee.

The following gentlemen were elected permanent members:

Dr. Phineas Hurd,
" Eli Pierce.

The following gentlemen were elected honorary members:

Dr. Jacob Bigelow of *Massachusetts*,
" Jonathan Knight of *Connecticut*.

The following were appointed the committee on prize questions and dissertations for the current year:

Dr. James M'Naughton,
T. Romeyn Beck,
Jonathan Eights,
Robert G. Frary,
Eli Pierce.

The following were nominated as permanent members:

Dr. Charles B. Coventry, *Oneida*.
" Lester Green, *Herkimer*.
" Lansingh Briggs, *Cayuga*.
" E. B. Burroughs, *Madison*.
" Waterman Ellsworth, *Chautauque*.
" Lyman Clary, *Onondaga*.
" Charles S. J. Goodrich, *Rensselaer*.
" Seth H. Pratt, *Allegany*.

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The following was nominated as an honorary member:

Professor Placido Portal, of *Palermo*, (*Italy.*)

Resolved, That the Comitia Minora be authorized to have a plate engraved of the diploma for licentiates of this society.

Dr. McNaughton from the Committee on Prize Dissertations, reported that but one dissertation had been received, and that, not until this day. The Committee, therefore, had been unable to examine the same.

Whereupon,

Resolved, That the prize question of last year be continued for the current one, and that the dissertation received be considered as offered for the next year, provided, however, that the author, if desirous of altering or amending it, may withdraw it.

The Prize Question for 1840 is the following: The Diseases of the Spinal Column, *their causes, diagnosis, history and best method of treatment.*

The sum of one hundred dollars is offered for the best dissertation on the above subject.

On motion of Dr. Goodrich,

Resolved, That the Committee of Publication be authorized to publish in a pamphlet form, a sufficient number of copies of the By-laws, the Rules and order of business, and such other matters as they may deem of importance for the use of the members.

Dr Beck stated that he had been engaged for some time in collecting statistics of the various medical colleges in the Union, and communicated the same in part to the society.

Resolved, That the Committee of Publication be directed to publish the same in the Transactions of the society.

Adjourned to 10 o'clock to-morrow morning.

Feb. 7, 1839.

The society met, pursuant to adjournment.

The minutes of the last meeting were read and approved.

Dr. Manley from the committee to whom was referred the following resolution, "*Resolved*, That a committee be appointed to inquire and report whether any, and if any, what alterations are necessary in relation to the powers granted to this

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society and to the several county medical societies of the state in relation to the power of granting license to practice physic and surgery, and to present the same as early as possible for the consideration of the society,"

Reported as follows:

That they have had the subject under consideration and after much deliberation, have concluded to report the following resolutions, without the reasons on which they are founded, from a belief that those reasons would be more fully exhibited during the debate which might grow out of their presentation in the society, and from a conviction also, that the society would entertain the resolutions with more respect, if offered without their reasons, than if any attempt was made to forestall opinion by any labored dissertation to defend them.

1. *Resolved*, That the right of granting license to practice physic and surgery should be more restricted than it is at present.

2. *Resolved*, That the right of teaching ought to be separated as much as possible from the power of conferring diplomas of license.

3. *Resolved*, That it is expedient that the power to license candidates should be confined to the medical society of this state, through the agency of qualified men to be by them appointed.

4. *Resolved*, That it be recommended to the honorable the Legislature at its present session, to grant no powers to license in connection with the powers to teach, and that in all charters for the incorporation of medical schools in future, the diplomas to be granted by them shall be evidences of acquirement only, and confer no power upon the possessor to practice physic and surgery, unless he be examined under the authority of this society.

JAMES R. MANLEY, *Ch'n.*

Dr. McCall from the minority of the above committee reported as follows:

The minority of the committee appointed by this society to report upon what amendments or alterations to the present medical law of our state respecting licenses to practice medicine are deemed necessary, beg leave, briefly to report, that as this society is made to consist by said law of delegates, that is to say, one from each county medical society throughout said state, and of permanent members elected annually by said state society conformably with the statute law upon that subject, it hence appears a self-evident fact that said state society is in a great measure created by and dependent upon the said

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county societies; and hence their views and interests, it would appear, were intended by the statute law to be not only carefully regarded but always vigilantly protected by this society, so as to promote in the best manner the cause of the medical profession generally throughout the state. With this understanding of the matter it seems just and reasonable that this society should consult said county societies, and thus obtain from them a fair expression of their opinions in relation to this subject before taking any immediate action on the matters referred to said committee.

Be it therefore *resolved* that the secretary of this society be required to transmit without unnecessary delay to each county society a circular requiring a full expression of opinion upon this all-important subject, to the end that this society may, in this as in all other matters involving the interests and character of the medical profession, take such measures as shall, at all times, best promote its prosperity and usefulness.

After considerable discussion the question was taken on the 1st resolution, proposed by the committee which is as follows:

1. *Resolved*, That the right of granting license to practice physic and surgery should be more restricted than it is at present.

And it passed in the affirmative. Ayes 12. Noes 7.

The Second Resolution: "2. *Resolved*, That the right of teaching ought to be seperated as much as possible from the power of granting diplomas of license," was adopted. Ayes 14, Noes 4.

The third and fourth Resolutions were then withdrawn by the committee with the consent of the society.

The resolution proposed by Dr. McCall was then adopted.

On motion of Dr. Tibbitts the following resolution was unanimously adopted:

Resolved, That this society have heard with deep regret of the death of Dr. J. H. Steel of Saratoga, a permanent member and late the president of this society, and that they do sincerely sympathize with the family of the deceased under this afflicting bereavement.

The following resolution was offered by Dr. McCall and adopted:

Whereas a national medical convention would advance in the apprehension of this society, the cause of the medical profession throughout our land, in thus affording an interchange of views and sentiments on the most interesting of all subjects, that involving men's health and the means of securing or recov

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ering the same: therefore *resolved*, that in our opinion such convention is deemed advisable and important; and we would hence recommend that it be held in the year 1840, on the first Tuesday in May of that year, in the city of Philadelphia — and that it consist of three delegates from each State Medical Society, and one from each regularly constituted medical school in the United States; and that the President and secretary of this Society be, and they are hereby instructed and required to transmit as soon as may be, a circular to that effect to each State medical society and medical school in said United States.

On motion of Dr. Goodrich,

Resolved, That the subject matter of the resolutions of the majority of the committee of which Dr. Manley was chairman, together with the resolutions reported by the committee of which Dr. Rogers was chairman, be referred to a select committee, and that they be required to give the whole subject of medical education in this state a thorough investigation and report to this Society at its next annual meeting.

Drs. Manley, Beck and McCall were appointed the committee.

Drs. Beck, Wing and Van OLinda were appointed the committee of publication for the current year.

The President and Secretary were authorised to audit the expenses of the present meeting.

Adjourned.

VII. List of Officers *of County Medical Societies*, 1839.

Albany County.

Dr. James P. Boyd, President,
Peter McNaughton, V. Pres.
Abraham Groesbeck, Secretary,
Henry Van OLinda, Treasurer.
John Wilson, Librarian.

Censors—Barent P. Staats,
Peter Van Buren,
John W. Hinkley,
Peter P. Staats,
Benj. Vreedenburgh.

Dr. P. Van OLinda, Delegate.

Annual Meeting, second Tuesday in January.

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Broome County.

Dr. Silas West, President,
George Burr, V. Pres.
N. S. Davis, Secretary,
P. B. Brooks, Treasurer,

Censors—Dr. — French,
George Burr,
O. T. Bundey,
P. B. Brooks,
R. Belden.

Dr. O. T. Bundy, Delegate.

Cayuga County.

Dr. Phineas Hurd, President,
Alexander Thompson, Secretary,
Joseph T. Pitney, Treasurer,
Edward C. Cadwell, Librarian.

Dr. Lansingh Briggs, Delegate.

Chautauque County.

Dr. Samuel Foote, President,
Waterman Ellsworth, V. Pres.
C. E. Burrows, Sec. and Treas.

Censors—Dr. Odin Benedict,
H. N. Arnold,
Wm. Hedges.

Dr. Waterman Ellsworth, Delegate.

Chenango County.

Dr. William D. Purple, President,
William G. Sands, V. Pres.
Daniel M. Wakely, Secretary.
William G. Sands, Treasurer,
Henry Mitchell, Librarian.

Censors—Dr. Charles H. Mitchell,
Brien Harris Jr.
Austin Rouse,
Devillo White,
Thompson Mead Jr.

Dr. Augustus Willard, Delegate.

Dutchess County.

Dr. John Cooper, President,
Nelson Andrews, V. Pres.
William Thomas, Treasurer,
Edmund F. Grant, Secretary.

Censors—Dr. Calvert Canfield,
Richard A. Varick,
A. H. Smith,
W. Hughson,
E. C. Tapping.

Annual Meeting, second Tuesday in November.

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Genesee County.

Dr. Guy B. Shepherd, President. *Censors*—Dr. W. B. Slawson,
T. T. Everett, V. Pres. W. P. Hurd,
H. Ganson, Secretary, John Cotes,
John Cotes, Treasurer, T. T. Everett,
B. Cotes, Librarian. W. H. Webster.

Dr. J. S. Billings, Delegate.

MEMBERS.

A. Amsden	S. Ainsworth	J. G. Abbett
William Brown	J. K. Barlow	J. A. Billings
J. S. Billings	A. R. R. Butler	B. Bancroft
B. Bliss	M. Barker	T. P. Baldwin
C. W. Belden	John Cotes	W. B. Collar
Ira Cross	P. Caner	M. H. Cowles
L. B. Cotes	A. P. Curtiss	G. S. Cheney
M. H. Combs	J. Cadman	M. Disbrow
E. O. Donoughue	T. T. Everett	S. Emery
A. Frank	W. Fay	H. Ganson
J. Huntingdon	Z. Hamilton	W. P. Herd
Otis Higgens	C. Jennison	G. L. Kenney
A. Long Jr.	L. Leonard	J. S. P. Lord
O. Lee	O. D. Long	L. McAlpin
J. C. Nevins	A. Owen	J. Putnam
L. Potter	M. E. Potter	E. Park
A. Pratt	D. Peck	V. Parks
W. H. Webster	J. Rano	W. Sheldon
C. P. Smith	M. G. Smith	R. M. Smith
H. Smith	J. H. Smith	W. B. Slawson
G. B. Shepherd	D. Sprague	S. Taggert
R. Taggert	G. Tabor	A. Thomson
E. Warner	G. Wells	A. Wilcox
G. Wells	A. Wilcox	L. Whitcomb
H. M. Wells	A. Walker	J. Ward

Lewis County.

Dr. J. M. Sturdevant, President, *Censors*—Dr. S. Miller,
S. Adams, V. President, M. L. Cummings,
D. Miller, Secretary, S. Adams,
S. Miller, Treasurer. D. Perry,
E. French

S. Miller, Delegate.

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MEMBERS.

Otis Shaw	J. Whitney	C. Squires
I. Adams	C. Orvis	R. D. Dewey
— Kellogg,	— Budd	— Gregory
S. Bass	C. N. Bass	

Madison County.

Dr. E. G. Messenger, President, *Censors*—Dr. O. Mead,
V. W. Mason, V. Pres. F. Rice,
M. Barnett, Secretary, — Spooner,
O. Mead, Treasurer. E. B. Burroughs,
A. G. Purdy.

Dr. E. B. Burroughs, Delegate.

Annual Meeting in July.

Niagara County.

Dr. B. L. Delano, President, *Censors*—Dr. H. Maxwell,
Jen. Chase, V. Pres. J. K. Skinner,
Henry Maxwell, Secretary, A. R. Chase,
Sherman McLane, Treasurer, Eli Hurd,
Hugh Gillis, Auditor. J. S. Shuler,

Dr. H. Maxwell, Delegate.

New-York.

Dr. Francis U. Johnson, President, *Censors*—Dr. Alex. E. Hosack,
William W. Minor, V. Pres. Isaac Wood,
Benjamin R. Robson, Treasurer, Henry D. Bulkley,
Benjamin B. Coit, Cor. Secretary, James O. Pond,
Dudley Atkins, Rec. Secretary. James McDonald.

Dr. James R. Manley, Delegate.

Oneida County.

Dr. U. H. Kellogg, President, *Censors*—Dr. Knight,
J. F. Trowbridge, V. Pres. Havens,
Daniel Thomas, Rec. Secretary, McCall,
Thomas Goodsell, Cor. Secretary, Preston,
C. B. Coventry, Treas. and Lib. Munger.

Dr. John McCall, Delegate.

MEMBERS.

John McCall	C. B. Coventry	J. P. Batchelder
Theodore Pomeroy	Thomas Goodsell	Patrick McGrath

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P. B. Peckham
I. N. Meacham
—— Rathbone,
Whiting Smith
Lyman Buckley
R. S. Sykes
S. B. Henderson
Daniel Thomas
Arba Blair
Harold Pope
Gustavus W. Pope
I. V. Cobb
Seth Hastings
Samuel Stuart
Charles Barrows
Almond Beardsley
J. P. Newland
G. W. Gardner
U. H. Kellogg,
Rufus Priest
Leverett Bishop
Barzilla Badlong
Jeremiah Knight
A. B. Bligh
David Larable
Wm. H. H. Davis
John F. Trowbridge
Medina Preston
E. A. Manger
W. S. Cleaveland
S. Z. Havens
Edward Loomis
A. S. Bradley
Herman Norton
Charles Babcock
Samuel Hastings
Alexander Whaley
J. S. Whaley
Parker Sedgewick
Welcome Sayles
Fitch House
—— Norton
—— Porter
Jotham Snow
Luther Guiteau
Luther Guiteau Jr.
Lemuel Beemer

Onondaga County.

Dr. Harman Van Deusen, President,
L. J. Tefft, V. President,
George Smith, Treasurer,
N. R. Tefft, Secretary.

Censors—Dr. J. W. Hanchett,
Geo. W. Richards
Lyman Clary,
F. H. Bangs,
Hiram Hoyt.

Dr. Lyman Clary, Delegate.

MEMBERS.

J. W. Hanchett,
R. R. Davis,
Mather Williams,
Lyman Clary,
George Smith,
Hiram Hoyt,
Michael Phillips,
M. M. White,
James Foran,
J. W. Daniels,
Wm. J. Lovejoy,
B. F. Green,
Andrew Vrooman,
C. S. Sterling,
William Taylor,
Henry B. Moore,
Ansel Lull,
Curtis J. Hurd,
John Briggs,
Jehiel Stearns,
Lucien Wells,
Harman Van Duzen,
George W. Gowing,
Wm. W. Kinney,
Daniel Harvey,
Hiram Adams,
Saul C. Upson,
Chauncey Williams,
Elijah Park,
Samuel M. Farnham,
Horatio Smith,
Ashbel Searl,
F. H. Bangs,
John Collins,
Hiram Wiggins
Samuel Porter,
Samuel Healy,
Daniel Smith,
N. R. Tefft,
Gordon Needham,
Joseph W. Brewster,
Samuel Kingsley,
Jared Wheeler,
Titus Merriman,
David Wilson,
Aaron T. Pitney,
James Riggs,
Homer Bacon,
G. W. Richards,
Daniel T. Jones,
Harvey Roberts,
William Laughlin,
Wareham Root,
Dennis Kennedy,

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John O. Shipman,	E. H. Porter,	Elijah Lawrence,
Alfred Clark,	Levi Bartlett,	Andrew P. Hamel,
Darwin Hurd,	Charles Mandeville,	Hezekiah Joslin,
George S. Loomis,	L. I. Tefft,	De Witt C. Worden,
O. A. Sherwood,	Alex. H. Cowles,	Abram T. Van Gasbeek.

Ontario County.

Dr. Thomas Spencer, President,
Richard Wells, V. President,
William Holland, Treasurer,
Isaac Freeman, Secretary.

Censors—Dr. Carter,
Spencer,
Rogers,
Carr,
Hall.

MEMBERS.

Richard Wells,	Gardner Wheeler,	David D. Dayton,
James Carter,	Benjamin F. Post,	Jonathan Burt,
Thomas Vincent,	Edson Carr,	E. W. Simmons,
Ralph Wilcox,	Elijah Sedgwick,	E. Cutbush,
Jeremiah Atwater,	E. W. Frisbee,	Thomas Spencer,
Henry P. Hicock,	Caleb Bannister,	M. M. Matthews,
Erastus B. Woodworth,	Jonathan Pratt,	Isaac Freeman,
Thomas Beach,	Willard Doolittle,	D. L. Rogers,
Nathaniel Jacob,	Lester Jewett,	A. S. Baldwin,
Augustus Torrey,	S. V. R. Bogart,	Lemuel B. Parker,
Harvey Pettibone,	Francis Deane,	John Staats,
Thomas Williams,	William F. Sheldon,	John Currie,
William Frisbee,	Harvey Jewett,	William Holland,
Ephraim W. Cheeney,	W. H. Hall,	Edwin Angel,
Andrew Wood,	N. J. Smith,	Daniel A. Robinson.
Jedediah Smith,		

Dr. David L. Rogers, Delegate.

Orange County.

Dr. John M. Gough, President,
James Heron, V. President,
James S. Horton, Secretary,
Thomas S. Edmonston, Treasurer.

Censors—Dr. Thomas S. Edmonston,
Samuel D. Holley,
Bartow Wright,
James Heron,
James M. Gardiner,

Dr. William Horton, Delegate.

Annual Meeting, First Thursday in May.

Oswego County.

Dr. Ransom Howard, President,
John G. Ayre, V. President,

Censors—Dr. Patrick H. Hurd,
Samuel Hart,

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Dr. Helon F. Noyes, Recording Sec'y,
Samuel Hart, Corresponding Sec'y,
Sardius Brewster, Treasurer.

Dr. Lewis M. Yale,
A. Gardner,
Sardius Brewster.

Dr. PATRICK H. HARD, Delegate.

Annual Meeting, Second Tuesday in June.

RENSSELAER COUNTY.

Dr. John Wheeler, President,
Platt Burton, V. President,
E. S. Crandall, Recording Sec'y,
Charles Smith, Cor. Secretary,
James Thorn, Treasurer,
James Christie, Curator.

Censors—Dr. Richard S. Bryan,
Amatus Robbins,
Tho's C. Brinsmade,
Samuel Haynes,
Frederick Leonard.

Dr. CHARLES S. J. GOODRICH, Delegate.

SARATOGA COUNTY.

Dr. Oliver Brisbin, President,
Calvin Preston, V. President,
Josiah Pulling, Sec'y and Treas'r.

Censors—Dr. Eliphalet St. John,
William Tibbits,
Josiah Safford,
David Low,
Finlay M'Martin.

Dr. WILLIAM TIBBITS, Delegate.

SCHOHARIE COUNTY.

Dr. M. E. Goff, President,
William Lamont, 2d, V. President,
Julius Rowley, Secretary,
Peter S. Swart, Treasurer.

Censors—Dr. Julius Rowley,
D. H. Kibbe,
Lorin Thompson,
Peter S. Swart,
Cornelius Van Dyck

Dr. JULIUS ROWLEY, *Cobleskill Centre*, Delegate.

Annual Meeting, First Tuesday in October.

SENECA COUNTY.

Dr. Claudius C. Goan, President,
J. L. Eastman, V. President,
Darwin Covert, Secretary,
M. B. Bellows, Treasurer,
Enos Palmer, Librarian.

Censors—Dr. M. B. Bellows,
C. D. Williams,
P. R. Wirts,
Amherst Childs,
Norman Eddy.

Dr. NORMAN EDDY, *Waterloo*, Delegate.

Annual Meeting, First Tuesday in June.

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MEMBERS.

Linus Ely,	Peter R. Wirts,	Edwin Dey,
Thomas C. Magee,	Caleb Loring,	Aaron Davis,
J. G. Tubbs,	J. B. Elliott,	Peter Covert,
M. B. Bellows,	Phineas Hart,	Claudius C. Coan,
Silas Keeler,	Norman Eddy,	Darwin Covert,
Charles D. Williams,	H. L. Eddy,	John L. Eastman,
H. H. Heath,	Enos Palmer,	Lewis Post,
Amherst Childs,	James A. Hahn,	William W. Kidder,
Gardner Welles,	Abm. N. Vantyne,	Richard K. Wheeler.
Jesse Fifield	Ethan Watson,	

Tompkins County.

Dr. Elbert Curtis, President,
Moses C. Kellogg, V. President,
William Bacon, Secretary,
John Stevens, Treasurer,
William S. Pelton, Librarian.

Censors—Dr. George W. Phillips,
J. E. Hawley,
John Stevens,
S. E. Clark,
Lewis Halsey.

Annual Meeting, First Wednesday after the Third Monday in May.

Washington County.

Dr. Russell Clark, President,
George Gillis, V. President,
James Savage, Recording Sec'y,
H. C. Gray, Cor. Secretary,
H. Cerliss, Treasurer.

Censors—Dr. William S. Norton,
George Gillis,
Freeman Hopkins.

Annual Meeting, in June.

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VIII. An Act *to Amend Title Seventh, Chapter Fourteenth, of the First Part of the Revised Statutes, and for other purposes.*

Passed May 26, 1836.

The People of the State of New-York, represented in Senate and Assembly, do enact as follows:

§ 1. The thirteenth section of title seventh of chapter fourteenth of the first part of the Revised Statutes, is hereby amended so that it shall read as follows:

No student who has attended one or more courses of medical lectures, shall be admitted to an examination by any medical society, except of the county in which he shall have pursued his medical studies for four months immediately preceding his attendance upon his last course of lectures, or by the censors of the State Medical Society.

§ 2. The seventeenth section of said title seventh, is hereby amended so that it shall read as follows:

No person coming from another state or country, shall practice physic or surgery in this state, until he shall have been examined and licensed by the censors of the State Medical society.

§ 3. The medical Faculty of Geneva college are hereby authorized to appoint a delegate to represent them in the State Medical Society, with all the powers and privileges which delegates from the respective medical colleges of this state possess.

§ 4. This act shall take effect immediately after its passage.

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IX. Classification of Counties.

As a new county, that of Fulton, has been erected, and another medical college has by law become entitled to send a delegate, the classification is here reprinted.

Vacant.	Vacant.	Vacant.	Vacant.
Feb. 1, 1840.	*Feb.* 1, 1841.	*Feb.* 1, 1842.	*Feb.* 1, 1843.
Greene,	Albany,	Westchester,	New-York,
Dutchess,	Oneida,	Columbia,	Orange,
Jefferson,	Cayuga,	Ulster,	Delaware,
Ontario,	Otsego,	Madison,	Onondaga,
Essex,	Saratoga,	Herkimer,	Montgomery,
Lewis,	Schenectady,	Chenango,	Rensselaer,
Schoharie,	Tioga,	Washington,	Genesee,
Niagara,	Cattaraugus,	Clinton,	Seneca,
Warren,	Richmond,	Suffolk,	Allegany,
Chatauque,	Rockland,	St. Lawrence,	Broome,
Orleans,	Steuben,	Cortland,	Franklin,
Putnam,	Sullivan	Erie,	Livingston,
Queens,	Tompkins,	Hamilton,	Monroe,
Fulton,	Chemung,	Kings,	Oswego,
College of P. & S.	College of P. & S.	Wayne,	Yates, 15.
New-York,	Fairfield,	Med. Fac. of N. Y.	
Med. Faculty of	Albany Med. Col.	City University, 16	
Geneva Col. 16.	16.		

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X. Legislative Proceedings *concerning the Albany Medical College, with the Act incorporating the same.*

1. In Assembly, *January* 8, 1839—*Report of the committee on medical colleges and societies, on the petition of the trustees of the Albany Medical College.*

Mr. Pratt from the committee on medical colleges and societies, to whom was referred the petition of the trustees of the Albany Medical College,

REPORTS:

Your committee are well aware of the vast responsibility devolving upon them. That the most invaluable rights of a whole community are involved in the character and intelligence of the medical profession, your committee assume to be incontrovertible; and upon those who have the guardianship of imparting medical knowledge, and upon the "Legislature who have authoritative influence over it, must always rest a deep and lasting responsibility." But in the judgment of your committee, the prayer of the petitioners at this time "comes invested with new and peculiar interest." The trustees, with other citizens of this city, have, with a magnanimity characteristic of their intelligence and at vast expense, fitted up an edifice with all the apparatus necessary to the successful prosecution of the duties of the different departments, and (relying upon the wisdom and justice of our Legislature) have for the first time in our history established a faculty in advance of all legislative enactments. Assuming as a position not to be successfully resisted, that medical colleges should be established in those places offering the greatest facilities to the acquisition of medical science, your committee with this conviction cannot but accord to this city a decided pre-eminence: With an extensive alms-house; with a sufficient number of highly accomplished professors within its borders; with a population sufficiently extensive to afford the medical student at all times an opportunity of witnessing the virtual treatment of disease; a consideration of the utmost importance when the

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seal to his commission shall authorize him to take upon himself the responsible duties of his profession. Your committee yield to none in their abhorrence of that species of legislation establishing exclusive monopolies, confidently relying upon the intelligence of an enlightened community, and fully assured that in a science which may in truth be said to be the science of nature herself, ignorance and empiricism cannot long stand in successful competition with high intellectual attainments, your committee would leave open and untramelled all avenues to intellectual improvement. It is true that with all our legislation, to death and the dissolution of organized matter, no effectual barrier can be opposed: but if the final event of its tendency can be alleviated or delayed, it is no presumption to reckon the legislation which aims at such purposes among the most useful employments of our legislative functions. Aside from the arguments which have been suggested, there are others which in the judgment of your committee have a controlling influence in selecting this city as a site for a medical college. "From the comprehensive nature of the science of medicine, even with regard to the diffusion of useful knowledge, the benefits resulting to a whole community from the establishment of such an institution in this city, will be by no means exclusively confined to the profession for which it is more particularly established. Anatomy, physiology, zoology, botany, mineralogy and chemistry are highly important and deeply interesting to every lover of science, and some of those branches cannot be studied successfully except in medical schools. The science of medical jurisprudence is as indispensible to the jurist as the physician." These are matters in which a whole community have a deep and abiding interest. In view of these considerations, to which may be added the literary character of the inhabitants of this city, the association formed by her young men for literary purposes, an association which is a proud monument to their intelligence, and is no less complimentary to this city than to to their patriotism, your committee have unanimously come to the conclusion that the prayer of the petitioners ought to be granted, and respectfully ask leave to introduce a bill.

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2. IN ASSEMBLY, *January* 8, 1839. *An act to incorporate the Albany Medical College (brought in by Mr. Pratt.)*

The People of the State of New-York, represented in Senate and Assembly, do enact as follows:

SECTION 1. Daniel D. Barnard, Samuel Stevens, John Taylor, Friend Humphrey, and their associates, are hereby constituted a body corporate, by the name of the "Albany Medical College," to be located in the City of Albany, for the purpose of promoting medical science, and instruction in the departments of learning connected therewith.

§ 2. The said corporation may hold and possess real and personal estate to the amount of one hundred thousand dollars; and the funds and property thereof shall not be used for any other purpose than those declared in the first section of this act.

§ 3. Daniel D. Barnard, Samuel Stevens, John Taylor, Friend Humphrey, James Goold, John I. Wendell, Andrew Kirk, Conrad A. Ten Eyck, Ira Harris, Bradford R. Wood, John O. Cole, William Seymour, Israel Williams, Oliver Steele, Robert H. Pruyn, John Groesbeck, John Trotter, Charles D. Gould, Arnold Nelson, Thomas McElroy, Philip S. Van Rensselaer, George Dexter and John Davis, are hereby appointed trustees of the said corporation, with power to fill any vacancy in their board; and the mayor and recorder of the city of Albany for the time being, shall be members of the board of trustees.

§ 4. It shall be lawful for the board of trustees to appoint the professors, and such other instructors as they may deem necessary, subject to removal by a vote of two-thirds of the members constituting said board, when found expedient and necessary; and in case there shall be a vacancy in the office of professor, or other instructor, after the first appointment as above mentioned, the trustees may supply such vacancy by appointing such person as may be recommended by the professors for the time being.

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§ 5. The trustees for the time being shall have power to grant and confer all degrees usually conferred by medical colleges, upon such individuals as shall have exhibited satisfactory evidence on an examination before the board of professors of said medical college, of their having fulfilled the legal requirements for such honor, and who may in other respects be pronounced worthy by the said board of professors, whose opinions shall be transmitted to the said board of trustees in the form of a certificate of recommendation. In testimony of conferring the above honor, a diploma shall be provided and signed by the president and secretary and by the professors of said medical college, to which shall be affixed the corporate seal of said institution; which said diploma shall be a license to practise physic and surgery within this state.

§ 6. The corporation hereby created shall possess the powers and be subject to the provisions of the eighteenth chapter of the first part of the Revised Statutes, so far as the same are applicable and have not been repealed.

§ 7. This act shall take effect immediately after its passage.

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3. In Senate, *January* 25, 1839—*Report of the committee on medical societies and medical colleges, on the bill relative to the incorporation of the Albany Medical College.*

Mr. Hull, from the committee on medical societies and medical colleges, to whom was referred the engrossed bill from the Assembly, entitled "An act to incorporate the Albany Medical College,"

REPORTS:

That the bill before them is one of public interest, and involves points of considerable magnitude in reference to medical education. The community are, or ought to be, desirous that the medical profession be well instructed and competent to perform the interesting duties required of them. The first question to be considered is, whether another medical college is needed in this State?

We have now the following incorporated medical institutions:

The College of Physicians and Surgeons of New-York, with about 100 students.

The College of Physicians and Surgeons of Fairfield, with 114 students.

The Medical Department of Geneva College, with about 65 students.

The Medical Department of the city of New-York, which is to go into operation during the present year.

It thus appears that four medical colleges are already instituted for less than 300 students. Besides these, there are some twenty schools or upwards, in various parts of the United States, to which a portion of our students will resort, either from convenience or because the advantages are superior. And the reason of this superiority is in part to be ascribed to the policy which restrains their increase, but improves their means of instruction. Thus Philadelphia, with its two medical schools, numbers between 500 and 600 medical students.

It is believed that out of nearly thirty medical schools in the United States, only five or six can be considered flour-

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ishing; that is, having upwards of 100 students attending. All the rest fall below that number.

The committee readily sympathize in the feelings of the citizens of Albany, who imagine that their city will be benefitted by the incorporation of a medical college; but those gentlemen also on consideration will readily concede that the question interests not only the city but the state generally. The committee having, however, on a fair and impartial consideration of the subject arrived at the conclusion that another medical school may be incorporated without injury, it remains to enquire whether the provisions of the present bill are in all respects proper.

The incorporated medical colleges (apart from those attached to literary colleges) in this state, are subject to the government of a board of trustees, and also to the supervision of the Regents of the University. All appointments of trustees and professors are made by the Regents, and the degree of Doctor of Medicine, after an examination by the professors, and the proof of certain legal qualifications demanded by our statutes, is conferred on the recommendation of the trustees of the respective colleges by the Regents. The present bill has none of these checks. The professors are to recommend; the trustees *must* confer the degrees. The committee cannot perceive any reason for this invidious distinction. In the one case the recommendations have to be forwarded from New-York and Fairfield, to Albany, to wait the pleasure of the Regents; while here an institution in the same city, is declared altogether independent of the Regents.

Again, the Regents appoint to all vacant professorships, while by the present bill, the professors in office have the sole power of recommending, or in other words of appointing to vacancies.

The committee deem it a well settled point, that no literary or scientific institution of any description can flourish without some endowment. If it relies merely on the industry and talents of its present teachers, that industry may become exhausted from the want of necessary support, and those talents will necessarily seek a situation where they will be more liberally fos-

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tered. In the present instance a public building has been loaned for five years, free of expense, and it has been repaired at an outlay of upwards of $5,000 obtained by private subscription. There is no positive assurance, but that at the end of five years, it will revert with all its repairs and improvements to the corporation of the city. The professors are also understood to be trammelled with an engagement to pay interest on the moneys subscribed, while the subscribers of these moneys have new and extraordinary privileges. Looking at the number of students to be reasonably anticipated; the unavoidably heavy expenses which are daily incurred and which the professors must defray; the time required to prepare themselves properly for their arduous duties; and then placing on the other hand, the compensation to be expected; the committee can come to no other conclusion, than if the Albany Medical College be incorporated in the manner at present proposed, its existence will be short-lived, and injurious to the cause of medical education. The temptations to an evasion of our present wholesome regulations must be greatly increased. The committee would therefore propose the following additions and amendments to the bill.

First, That a board of curators should be appointed by the State Medical Society, consisting of medical gentlemen, who shall attend the examinations, and when satisfied of the legal and other requirements being complied with, shall sign the recommendation of the professors, requiring the trustees to confer degrees. That the 4th section be so amended as to confer on the trustees the power to appoint to vacant professorships such persons as they deem proper. That the 5th section be amended so as to conform to the provisions as above stated, in relation to the curators signing the recommendation or certificate for a degree; and that an additional section be added, allowing the Legislature to alter, modify or repeal this act.—With the above amendments, the committee would recommend the passage of the bill.

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4. In Senate, *February* 6, 1839. *Amendments moved by Mr. Hull, when in committee of the whole, to the bill entitled "An act to incorporate the Albany Medical College."*

Dele the whole of the bill after the enacting clause, and insert the following sections:

Section 1. Whenever it shall be satisfactorily shewn to the regents of the university, that a proper building for the delivery of medical lectures has been obtained, and an endowment of not less than dollars properly secured, it shall be the duty of said regents to issue a charter for the "Albany Medical College," in all respects similar to the charters of the present colleges of physicians and surgeons in this state.

§ 2. The said Albany Medical College when chartered as above, shall be entitled to all the privileges and immunities now conferred by the laws of this state on the said colleges of physicians and surgeons, and also be subject to all the regulations now binding on the same.

§ 3. It shall be the duty of the regents of the university in their first appointment of trustees and professors, to have due regard to such persons as have been most instrumental in founding and endowing the above college.

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AN ACT

To Incorporate the Albany Medical College.

Passed February 16, 1839.

The People of the State of New-York, represented in Senate and Assembly, do enact as follows:

SECTION 1. Daniel D. Barnard, Samuel Stevens, John Taylor, Friend Humphrey, and their associates, are hereby constituted a body corporate, by the name of the "Albany Medical College," to be located in the city of Albany, for the purpose of promoting medical science, and instruction in the departments of learning connected therewith.

§ 2. The said corporation may hold and possess real and personal estate to the amount of one hundred thousand dollars; and the funds or property thereof shall not be used for any other purposes than those declared in the first section of this act.

§ 3. Daniel D. Barnard, Samuel Stevens, John Taylor, Friend Humphrey, James Gould, John I. Wendell, Andrew Kirk, Conrad A. Ten Eyck, Ira Harris, Bradford R. Wood, John O. Cole, William Seymour, Israel Williams, Oliver Steele, Robert H. Pruyn, John Groesbeck, John Trotter, Charles D. Gould, Arnold Nelson, Thomas McElroy, Philip S. Van Rensselaer, George Dexter and John Davis, are hereby appointed trustess of the said corporation, with power to fill any vacancy in their board; and the mayor and recorder of the city of Albany for the time being, shall be members of the board of trustees.

§ 4. It shall be lawful for the board of trustees to appoint the professors, and such other instructors as they may deem necessary, subject to removal by a vote of two-thirds of the members constituting said board, when found expedient and necessary.

§ 5. The trustees for the time being shall have power to grant and confer the degree of doctor of medicine, upon the recommendation of the board of professors of said college, and upon the recommendation of at least three curators of the med-

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ical profession, appointed by said trustees: but no person shall receive a diploma conferring such degree, unless he shall be of the age of twenty-one years, and shall have pursued the study of medical science for at least three years after the age of sixteen, with some physician and surgeon duly authorized by law to practice his profession; and shall also, after that age, have attended two complete courses of all the lectures delivered in some incorporated medical college, the last of which courses shall have been delivered by the professors of said college. In testimony of conferring the above honor, a diploma shall be provided and signed by the president and secretary and by the professors of said medical college, to which shall be affixed the corporate seal of said institution; which said diploma shall have the same force and effect as license to practice physic and surgery, as are given by law to the licenses granted by incorporated medical societies in this state.

§ 6. The college shall be subject to the visitation of the Regents, and shall annually report to them.

§ 7. The medical faculty of the college hereby incorporated, are authorized to appoint a delegate to represent them in the state medical society, with all the powers and privileges which delegates from the respective medical colleges of this state possess.

§ 8. The corporation hereby created, shall possess the powers and be subject to the provisions of the eighteenth chapter of the first part of the Revised Statutes, so far as the same are applicable and have not been repealed.

§ 9. The legislature may at any time, alter, modify or repeal this act.

§ 10. This act shall take effect immediately.

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XI. *Abstract of the Proceedings of the* MEDICAL SOCIETY OF THE STATE OF NEW-YORK, *at its Annual Session in February*, 1840.

The Medical Society of the State of New-York met pursuant to statute, at the Capitol in the city of Albany, on Tuesday, the 4th of February, 1840.

PRESENT.

Dr. Laurens Hull, Permanent Member, *President.*
" Sumner Ely, do *Vice-President.*
" Peter Van OLinda, Delegate, *Albany, Secretary.*
" Platt Williams, Permanent Member, *Treasurer.*
" John McClellan, Delegate, *Columbia.*
" Thomas Goodsell, do *Oneida.*
" Chas. S. J. Goodrich, do *Rensselaer.*
" Augustus Willard, do *Chenango.*
" E. B. Burroughs, do *Madison.*
" Lester Green, do *Herkimer.*
" Morgan Snyder, do *Montgomery.*
" William Horton, do *Orange.*
" Julius Rowley, do *Schoharie.*
" William Bay, Permanent Member.
" Andrew G. Benedict, do
" Phineas Hurd, do
" Thomas Spencer, do
" *Samuel White, do
" Jonathan Eights, do
" James McNaughton, do
" Richard Pennel, do
" T. Romeyn Beck, do
" Peter Wendell, do
" Joel A. Wing, do
" *Robert G. Frary, do
" *Samuel McClellan, do
" *Harvey W. Doolittle, do

* Took their seats the second day.

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The following gentlemen presented certificates as delegates from their respective County Medical Societies and Colleges, and took their seats accordingly.

Dr. William Stuart, *Otsego.*
" William S. Norton, *Washington.*
" Lorenzo Dana, *Allegany.*
" C. B. Coventry, *Geneva Medical College.*
" Chandler R. Gilman, *New-York.*
" Frank H. Hamilton, *Western Medical College.*
" Alden March, *Albany Medical College.*

The following physicians, members of the Legislature, were invited to take their seats with the Society as honorary members.

Dr. Bethuel Peck, of the Senate, *Warren.*
" John F. Trowbridge, *Oneida.*
" Langdon J. Marvin, *Fulton.*
" Guy Hulett, *Chemung.*
" Lorenzo Dana, *Allegany.*
" Odin Benedict, *Chautauque.*
" Daniel Barker, *Madison.*
" Orson M. Allaben, *Delaware.*

Drs. Spencer and Goodsell were appointed a committee to inform them of the above invitation.

Drs. Trowbridge, Barker and Allaben were appointed a committee to wait upon the Speaker of the Assembly and obtain the use of their chamber to-morrow, at 4 P. M., for the delivery of the President's Address: Who subsequently reported that the Assembly Chamber was pre-engaged, but that they had obtained the use of the Senate Chamber.

The following gentlemen being present, were invited to take seats as honorary members.

Dr. Joseph White of *Montgomery.*
" Andrew Boardman of *New-York.*
" J. H. Armsby, *Prof. in Albany Medical College.*

Docts. Hurd and Goodrich were appointed a committee to wait on the Governor, Lt. Governor, Chancellor and Judges of the Supreme Court, and invite them to visit the Society during its session, if consistent with their engagements.

The following donations to the Prize Fund were received from County Medical Societies.

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From Columbia	County,.....		$5 00
" Oneida	do		5 00
" Rensselaer,	do	1838 and 1840,....	10 00
" Chenango	do		3 00
" Madison	do		3 00
" Herkimer	do		5 00
" Montgomery	do		2 00
" Otsego	do		2 00
" Washington	do	for 1839 and 1840	10 00
" New-York,	do		10 00
" Geneva	College,.....		3 00
" Western	College,.....		5 00
" Albany	College,.....		5 00
" Cayuga	County,.....		5 00
" Kings	do	$2 for 1839, $5 for 1840	7 00
" Orange	do		5 00
" Erie	do		5 00
" Albany	do		5 00
			$95 00

The Censors of the Southern District report, that they have examined and licensed the following persons during the last year.

1839. March	13.	James M. Smith.
Sept.	3.	Jacob Bockee.
	8.	A. Goldsmith.
	9.	Ludwig Detmold.
Octr.	3.	Christopher McLellan.
	31.	Peter More.
Nov.	19.	Nathaniel Lightbourne.
	25.	Frederick Augustus Huffner.
Dec.	25.	John Langdon Sullivan.
1840. Jany.	20.	Charles Sylveine Leré.

The fees ($100) were enclosed in the report.

EDWARD G. LUDLOW,
JAMES R. MANLEY,
JOHN C. CHEESMAN,
} *Censors.*

The Censors of the Western District reported, that they have examined and licensed during the last year, the following persons.

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Thomas Nelson Thompson of *Michigan.*
LeRoy Delos Gage of *Onondaga County.*
Hiram Saunders Crandall, of *Madison County.*
Lewis Halsey Kelly of *Tioga County.*
Alexander K. McKenzie of *Canada.*

The fees ($50) are in the hands of Dr. Maxwell, subject to the draft of the Treasurer.

P. H. HARD,
HENRY MAXWELL,
LANSINGH BRIGGS,
} *Censors.*

The Censors of the Eastern District reported, that they have examined and licensed the following persons during the last year.

1839. Sept. 17. Dr. Blin S. Sill.
Dec. 23. " Lorenzo Gile.
1840. Jan. 18. " George W. Cawkins.
Feb. 4. Ezra Parmelee.
Dr. Otis Jenks of *Lower Canada.*

The fees for Diplomas in this District are paid to the Secretary.

JON. EIGHTS, *Senior Censor.*

The Censors of the Middle District reported, that they have examined and licensed

Dr. James Bell of *Angelica, Allegany County.*

The fee ($10) is herewith transmitted.

E. B. BURROUGHS, *Senior Censor.*

The following Reports and Resolutions were received from county societies in relation to the office of County Censor.

Medical Society of the County of Columbia.

In conformity to the request of the New-York State Medical Society, the Columbia County Medical Society had the following proceedings at its annual meeting, held October 1st, 1839.

Dr. Pruyn, from the committee appointed for the purpose, reported the following preamble and resolutions, which were adopted.

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Whereas a circular has been received from the State Medical Society, calling for an expression from the County Societies as to the manner of granting licenses,

Therefore,

Resolved, That in the opinion of this Society the power of licensing physicians is properly conferred upon the State and County Medical Societies, and that although we would carefully guard against licensing imperfectly qualified persons, yet we see no necessity of changing the manner of conferring licenses.

Resolved, That we approve of the resolution which separates as much as possible the right of teaching from conferring licences to practice.

J. M. PRUYN, *Chairman.*

A true copy.

R. ROSMAN, *Secretary.*

Medical Society of the County of Oneida.

The committee appointed at the last meeting of the Society, on the propriety of altering the law regulating the practice of physic and surgery so as to abolish the present power of granting diplomas, by county societies, to students, and consenting that that power shall be given to the State Medical Society,

RESPECTFULLY REPORT:

The power of conferring the right to practice medicine in this state, is now by law enjoyed equally by censors appointed by the several county societies, and those appointed by the State society. This power is the highest and most important prerogative conferred upon the county societies by their corporate powers. We had almost said the only one, for all the other advantages might be attained by voluntary associations. It is a power of great importance, both as regards the interest of the community, and the dignity, honor and usefulness of the profession. In addition to all this, your committee would recommend this society not to surrender the right of granting diplomas, which by law it now enjoys, for the following reasons, viz: Derivable from this source is a revenue, which the society would have to lose. The power, it is believed, has in no instance been abused, by admitting into the profession ignorant and unqualified individuals.

It is a matter of great importance that the examinations, other things being equal, should be conducted in the county where the candidate has pursued his professional studies, and where his conduct and character are known.

There is also a difficulty of obtaining a quorum of state censors, as they often live at a considerable distance from

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each other; in consequence of which, the candidates become liable to unnecessary delays and expenses.

As the law now stands, the student selects at his option the state or county censors, and if he feels aggrieved by the decisions of the latter, he may appeal for redress to the former.

In conclusion, your committee would respectfully offer the following resolution:

Resolved, That our delegate communicate a copy of the above report to the State Medical Society.

HERMAN NORTON.

The above report was adopted by the Medical Society of the county of Oneida at its semi-annual meeting, held in Utica, 7th January, 1840.

DANIEL THOMAS, *Sec'y.*

Washington County Medical Society.

Resolved, That we believe that under present circumstances it is inexpedient to dispense with the county censors, and that it will conduce most to the accommodation of students and candidates for license, and the interests of the profession generally to continue them,

Passed unanimously, June 25, 1839, by the Washington County Medical Society.

J. SAVAGE, *Sec'y.*

The Standing Committee on the Bye-Laws of County Medical Societies,

REPORT:

That they have received from the Secretary, the following:

Bye-Laws of the Rensselaer County Medical Society, 1828.

Bye-Laws of the Seneca County Medical Society, 1838.

And Sundry Proceedings of the Washington County Medical Society for 1837-38.

The Committee will proceed to notice these in detail.

1. *Rensselaer County.*—The Committee do not find anything in the bye-laws inconsistent with the laws of the State, or the bye-laws of the State Medical Society.

2. *Seneca County.*—Sect. 8 of the bye-laws of this society is as follows:

"The censors shall examine all candidates duly qualified by law to apply for license, and if any such candidate shall exhibit a general knowledge of natural philosophy, chemistry, and a thorough knowledge of *anatomy, physiology, materia medica, pharmacy, theory and practice of physic and of surgery*, and the principles of practice of the most approved systems of

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midwifery, and shall at the time of his examination, have read an *inaugural essay*, on some medical subject, (which shall be in the candidate's own hand-writing, free from orthographical or grammatical errors) it shall be the duty of the censors to give him a certificate, with their signatures annexed, directed to the president."

On the latter clause of this section, the committee will repeat the report made by them in 1827, concerning similar provisions in the bye-laws of the Columbia and Clinton Counties Medical Societies, viz:

"In each of these, the candidate is directed to present an inaugural dissertation, in addition to passing the required examination. However desirable this might be, yet as it is not required by statute, it is doubtful whether it could be enforced."

The Committee are of opinion that county medical societies are not authorized to increase their requisitions beyond those given to them by statute, and they therefore report the following resolution:

Resolved, That the Secretary notify the Seneca County Medical Society, that, in requiring an inaugural dissertation from their candidates for license, it has exceeded the powers given to it by statute.

3. *Washington County.* — The manuscript proceedings, communicated to this Society, state that a fee bill has been adopted by the Washington County Medical Society, and it was understood from the verbal statement of the delegate, that an expression of opinion was desired. The Committee respectfully enter on this.

They premise by stating, that the bye-laws of the State Medical Society were adopted at its first session in 1807, and that by statute every county medical society is forbidden to adopt bye-laws inconsistent with these. The bye-laws of the State Society were revised and printed in 1811, 1816, 1825, and 1832.

On the subject of fee bills, nothing is said in the bye-laws of 1807, but in those of 1811, the following provisions are contained.

"And whereas it is inconsistent with the dignity of the medical profession, for physicians and surgeons in their corporate capacities to arrange and fix professional charges,

Be it therefore ordained, That any member of this society, who shall hereafter be guilty of promoting, favoring, or encouraging the members of any medical society in their corporate capacity, to form, support and fix medical charges and who shall be convicted thereof before the said medical society at an anniversary meeting, to the satisfaction of a majority of the members present, shall be expelled the society

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and shall forever after be debarred from being received as a member thereof.

And it is hereby further ordained, That no incorporate county medical society shall fix any medical charges and such proceedings are hereby declared to be discountenanced by this said society and to be null and void and of no effect."

These provisions were continued in the bye-laws as revised in 1816 and again in those adopted in 1825 (see §§ 16 and 17,) but in the revision of 1832, they are altogether omitted. The reasons for this omission the Committee suppose to have been the following—that the subject matter in question was one on which the State Medical Society ought rather to give an opinion, than to legislate. Every corporate body constituted like the State Medical Society is in danger of losing its legitimate weight and influence, if it exceeds the powers given to it by statute, and if there exist any doubt on a question coming before it, it should rather content itself with a frank and full expression of opinion, than to pass laws which by possibility may be declared inoperative.

With these views, and conceding the *right* merely of the Washington County Medical Society to establish a fee bill, the committee are notwithstanding unanimous in advising its repeal, for the following reasons.

It cannot be enforced. It will never be universally adopted, and even if this be promised, the modes of evading its provisions are so numerous, that the regulations become in a measure nugatory. *It is oppressive to young practitioners.* If all must charge alike, certainly the sick will apply exclusively to the older and more experienced. *It might be used as a means of bringing odium on the profession*, by promulgating the idea that they *combine* for the purpose of obtaining a high remuneration.

Again, fee bills are in their nature deceptive. For extraordinary cases, and which may occur once or twice in a year, they establish a rate which may by possibility be observed; but for ordinary charges, they are by necessity often allowed a latitude which practically renders them nugatory. Thus a visit is often rated at from 4*s.* to 8*s.*, and a purgative medicine from 2*s.* to 4*s.* Even however if these have a fixed value given to them, they cannot be collected from all, and the result is, a return to the ancient and better mode of practice, viz: to make the rich pay in some measure for the attendance on the poor.

It will be observed that these objections are urged against the establishment of fee bills for a county society. It is quite another matter, whether physicians of nearly equal standing in a populous city, should not be allowed a sort of tacit understanding as to the amount of fees they should charge. This

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may be necessary in some instances, for the collection of accounts, in case they be disputed.

T. R. BECK,
WILLIAM BAY,
PETER WENDELL, } *Committee.*

On motion, the above report was accepted, and the resolution in relation to the Seneca County Medical Society adopted.

The Treasurer presented his annual report, which was accepted and referred to a committee consisting of Drs. Burroughs, Goodrich and Norton.

The Treasurer of the Medical Society of the State of New-York, respectfully submits the following as the state of the funds the 4th of February, 1840.

By balance in the hands of the Treasurer the 5th of February 1839, agreeable to the report of the committee appointed to examine the Treasurer's accounts,.....		$190 75
1839.		
Feb'y 5.	By Dr. Edward G. Ludlow's check on the Commercial Bank, New-York, for $50 for five diplomas granted by the censors of the Southern District,.....	50 00
Feb'y 5.	Received from the Secretary, Dr. James R. Manley's Check on the Chemical Bank, New-York, for $20, from the Medical Society of New-York to the medical prize fund,.....	20 00
Feb'y 5.	By cash from the Secretary, from several county societies to the medical prize fund,.....	70 00
Feb'y. 5.	By cash from the Secretary for two diplomas granted by the censors of the Middle District, sent by Dr. E. B. Burroughs, senior censor,.....	20 00
March 20.	By cash from Mr. Rhoades, being the amount received by Dr. Lake J. Tefft, senior censor of the Western District for eight diplomas,.....	80 00
1840.		
Feb'y 1.	By cash from the Secretary for five diplomas granted by the censors of the Eastern District,.....	50 00
		$480 75

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The expenditures of the Society are shown by the following accounts and vouchers, for 1839.

1839.				
Feb'y 8.	To cash paid to John N. Boardman for one load of wood, ink, paper, quills, &c., and three days' attendance on the Society, at the annual meeting,.....			$11 00
Feb. 13.	To cash paid to Hoffman & White, publishers of the Albany Evening Journal, for printing notice of annual meeting, 1839,.			1 25
March.	To cash paid E. W. & C. Skinner, publishers of the Albany Daily Advertiser, for printing notice of annual meeting, 1839,.....			1 50
April 10.	To cash paid to Joel Munsell for printing 50 copies of Dr. Hull's Address,....	$3 00		
	300 copies Bye-Laws,.....	22 00		
	500 do Transactions of the Society for 1839, 152 pages,.....	195 32		
	6 pages tables,.....	3 90		
	160 copies of Circulars to County Societies,.....	4 50		
				228 72
April 28.	To cash paid to Rawdon, Wright & Hatch for printing 25 medical diplomas at 50 cts. each,.....			12 50
				$254 97

Amount of balance, 1839,.....	$190 75	
Amount of moneys received, 1839,.....	290 00	
		480 75
Amount of expenditures, 1839,.....	$254 97	
Leaving a balance in the hands of the Treasurer of.....	$225 78	
		480 75

All which is respectfully submitted.

PLATT WILLIAMS, *Treasurer.*

The following resolution from the Columbia County Medical Society was presented:

At a special meeting of the Medical Society of the County of Columbia, held on the 20th January, 1840, the following resolution was unanimously adopted.

Resolved, That no person coming from another state or

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county shall practise physic or surgery in this state until he shall have been examined and licensed by a board of censors of the State Society, or of the County Society in which he resides.

A true copy. R. ROSSMAN, *Secretary.*

Adjourned to 4 o'clock P. M.

TUESDAY, 4 P. M.

The Society met, pursuant to adjournment.

The following copy of a petition to the legislature from the Medical Society of the County of Monroe was read.

To the Honorable the Legislature of the State of New-York, in Senate and Assembly convened:

The Memorial of the Medical Society of the County of Monroe.

Your memorialists have witnessed with great dissatisfaction the oppressive operation of the amendment of 1836, to section 17, of the Medical Laws of this state; whereby foreign practitioners of medicine are prevented from collecting their dues for professional services, without a re-examination by the New-York State Censors. *Recent* graduates of foreign colleges and *experiencad* practitioners from abroad, are constantly entering our State. The late contests in the Canadas, and their present unsettled condition have driven many eminent physicians from these countries. Every meeting of our Society witnesses the application for admission of graduates of the Universities of Dublin, Glasgow, Edinburgh, &c. It seems an indignity to those celebrated institutions, and a needless hardship upon those gentlemen, the Rolphs and the Nelsons of the provinces, to insist upon an assemblage of the State censors, and a re-examination of the candidates. Some of the professors in our colleges of medicine are not legalized practitioners of the art they teach. The graduates of the deservedly popular universities of Harvard, Yale, Pennsylvania, and of other reputable schools of medicine in New England, and the south and west, complain much of what appears to them the *illiberality* of our laws, which compel them to *incur the expense* of assembling physicians who reside at a distance from each other, and to re-undergo, what to young men seem *the horrors* of an examination. Many under such circumstances refuse to be re-examined, and thus the law fails of its effect. These gentlemen, refraining from associating themselves with their professional brethren, jealousies arise, and harmony is prevented to the injury of each other, and not

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unfrequently of their patients. The expense and difficulty would be diminished greatly by allowing the examinations to be conducted by the county censors, and the state censors thereby would be saved the inconvenience attendant upon so frequent calls from their business and their homes.

Very few physicians practice in the place of their education. During the last four years, some twenty-five physicians are remembered to have come to the city of Rochester to practice, while from six to twelve of the students of medicine of that city, have gone west and south, and only two have offered themselves for business there, both of whom have since left. Such laws, therefore, if universally adopted will everywhere be oppressive, as far as they are operative. And will not the states of the west and south be induced by the example of New York, to pass similar laws, and thus prevent their young men from seeking a professional education at our now rising and successful colleges of medicine? And will not New England be led to adopt some retaliatory measures? Even should no similar enactment be made by other states, still our own institutions will hardly be benefitted by our present law. Colleges cannot be efficiently protected by any tariff or embargo upon the graduates of foreign schools. They must stand by their own merit, and illiberal legislation will excite a suspicion of weakness, and have any effect sooner than that of rendering the institutions popular with the profession. There is manifest propriety in such enactments in the case of the gentlemen of the bar, for the laws of the land and the practice of Courts vary essentially in different countries, but the laws of disease and the practice of medicine are the same in New England or Old England, Pennsylvania or New York, and a stranger always has abundant time to become familiar with local peculiarities of constitution and climate before his services are in much requisition in any new neighborhood. A diploma from any institution of acknowledged respectability, and certificates of study for a time at least equal to that required by our law, should be a sufficient guaranty of professional character, and entitle their owner to the fellowship of his brethren in this state.

It appears to your memorialists then, that the law in question, while it is in a great measure inoperative, as far as it is effectual, is injurious to our own colleges of medicine, disrespectful to the institutions of other states and countries, oppressive to those whom it chiefly concerns, derogatory to the noble profession we practice and unworthy the liberal and enlightened State of New York.

Your memorialists therefore, pray that the Amendment in question be repealed forthwith—or, if that be thought unadvisable, that it be so changed as to allow re-examinations of

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foreign practitioners to be made by the censors of the several counties.

The following proceedings of the Medical Society of the County of Otsego, on the above memorial, were also presented by its delegate.

At the semi-annual meeting of the Medical Society of the County of Otsego, held at Cooperstown, January 20, 1840, the foregoing Memorial was read and considered. Whereupon the Society resolved, that the change in the laws asked for in said petition ought not to be granted.

JOEL LULL, *Prest.*

JOHN DRAKE, *Sec'y pro tem.*

The delegate from the Medical Society of the County of Herkimer also stated that the above Memorial had been laid on the table by said society.

On motion of Dr. Ely,

Resolved, That the above papers be referred to a select committee; and Drs. Ely, Spencer and Gilman were appointed said committee.

Dr. Beck, from the committee appointed at the last session of the Society to report on the subject of Medical Education in this State, made a report.

(See Art. XII. of the Transactions, Vol. IV.)

On motion,

Resolved, That one thousand extra copies of the above report be printed for distribution, particularly among the county medical societies.

Dr. McNaughton, from the Committee on Prize Dissertations, made the following report:

The Committee on Prize Questions and Dissertations,

REPORT:

That only one essay has been received on the "Diseases of the Spinal Column, their Causes, Diagnosis, History, and best mode of Treatment," although the subject has been left open for two years. The committee consider the essay submitted to their examination a highly judicious and respectable performance, manifesting a familiar acquaintance with the best writings on the subject of which it treats, and considera-

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ble practical knowledge of the most important diseases of the spinal column.

Believing that the publication of this essay, under the authority of the Society, would be instrumental in more generally diffusing through the profession in this state, a knowledge of some of the most formidable diseases to which the human frame is liable, your committee recommend, that although there is no other competitor for the prize, the sum of fifty dollars be awarded to the author of the dissertation now in the hands of the committee.

Your committee believe that by so doing we shall in future encourage more candidates to enter the field of competition on such questions as may hereafter be proposed by the Society.

Respectfully submitted.
JAMES McNAUGHTON, *Chairman.*

On motion,

Resolved, That the above report be accepted.

Resolved, That the sum of fifty dollars be awarded and paid to the author of the dissertation referred to in the report, and that fifty extra copies of the same be printed for his use.

The sealed note containing the name of the author was then opened, and it was found to be

NATHAN S. DAVIS, M. D.
Of Binghamton, Broome County, N. Y.

An account of Rawson Packard for engraving a plate for the Latin Diploma, for the Licentiates of the Society, was presented and ordered to be paid.

Adjourned until to-morrow morning at 10 o'clock.

WEDNESDAY, FEB. 5, 10 A. M.

The Society met pursuant to adjournment.

The minutes of the last meeting were read and approved.

The Committee on the Treasurer's Account made the following report, which was accepted.

The Committee having in charge the examination of the Treasurer's Account, beg leave to

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REPORT:

That they have examined the same and find it correct and satisfactory.

And in reference to the transmission of fees for diplomas by the different boards of censors, we find no delinquency, except the one noticed in the Transactions of this Society for 1839, and which now seems to stand thus. Dr. H. H. Bissel, late censor for the Western District, holds a note against Dr. Pride of Erie county, for twenty dollars, the amount due the State Society from that district, which he promises to transmit to the Secretary, when paid.

E. B. BURROUGHS,
W. S. NORTON,
CHAS. S. J. GOODRICH, } *Committee.*

The Secretary reported that he had received from the Massachusetts Medical Society, through E. Hale, M. D., of Boston, the following work: *Medical Communications and Dissertations, read before the Massachusetts Medical Society*, vols. 3, 4 and 5, and parts 1, 2 and 3 of vol. 6.

Resolved, That the thanks of this Society be presented to the Massachusetts Medical Society for its valuable and acceptable donation.

Resolved, That the Secretary transmit to the Massachusetts Medical Society, a full set of the Transactions of this Society, and that he request a regular interchange of publications.

The committee to whom was referred the resolutions and papers relativo to the repeal of the medical law of 1836, reported; which report was accepted, and with the accompanying resolution was adopted.

The committee to whom was referred the resolutions and papers relative to the repeal of the medical law of 1836,

RESPECTFULLY REPORT:

That they have given deliberate consideration to the subject committed to their charge, and have come unanimously to the determination to submit for the approval of the Society, the following resolution:

Resolved, That the Comitia Minora of the State Medical Society be instructed to prepare and present to the honorable the Legislature, a remonstrance against the repeal or modification of the medical law of 1836, requiring all persons from foreign states or countries to undergo an examination before

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the censors of the State Medical Society, before they are allowed to practice.

S. ELY,
T. SPENCER,
C. R. GILMAN,
} *Committee.*

The Society then proceeded to appoint three delegates to represent it in the National Medical Convention, proposed to be held at Philadelphia in May, 1840, viz.

Dr. John McCall, *of Utica,*
" Thomas Spencer, *of Geneva,*
" Joel A. Wing, *of Albany.*

The following were proposed as prize questions for the ensuing year, and adopted, and the sum of fifty dollars voted to the successful candidate on each question.

1st. The medical literature of Cholera Morbus previous to the appearance of the epidemic cholera.

[It is expected that the medical history of Cholera Morbus in this country will be particularly examined.]

2d. An Analysis of the Discoveries concerning the Physiology of the Nervous System, from the publications of Sir Charles Bell to the present time; both inclusive.

[The report of Dr. Wm. Charles Henry (in the 2d vol. of the Reports of the British Association of Science) made on this subject in 1833, may be freely used, but it is required to continue the analysis down to the present time.]

On motion of Dr. Goodrich, the following resolution was adopted.

Resolved, That the thanks of this Society be and are hereby presented to Jerome V. C. Smith, M. D., of Boston, Mass., for his politeness and attention as the medium of communication from Prof. Portal, of Palermo, to this Society in 1839.

A communication was received through Dr. McNaughton from the Erie County Medical Society, requesting the opinion of this Society.

Whereupon,

Resolved, That a committee of three be appointed to report upon the subject of said communication, consisting of Drs. McNaughton, J. McClellan, and Spencer.

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Doctor A. Willard was added to the standing committee on vaccination.

Doctor Beck submitted the remainder of his "Statistics of the Medical Colleges of the United States."

Resolved, That the thanks of this Society be presented to Doctor Beck for the same, and that any expense of postage he has incurred in this matter be paid by the Treasurer of this Society.

Adjourned to ½ before 4 o'clock P. M.

WEDNESDAY, FEB. 5th, ¼4 o'clock, P. M.

The Society met pursuant to adjournment and proceeded to the Senate Chamber, to hear the President's address.

Immediately after their return, on motion of Dr. Spencer the following resolution was adopted.

Resolved, That the thanks of this Society be presented to Dr. Laurens Hull, for his able and interesting address, and that a copy be requested for publication.

The Society then agreed to repair to the Assembly Chamber to hear the Eulogy on Judge Buel, by Amos Dean, Esq.

The undersigned, a committee appointed to wait on the Governor, Lieutenant Governor, Chancellor and Judges of the supreme court,

RESPECTFULLY REPORT:

That they have discharged their duty, and the reply of the Governor is herewith transmitted.

Respectfully,

PHINEAS HURD.
C. S. J. GOODRICH.

State Medical Society's Rooms, Feb. 4th, 1840.

Albany, Feb. 5th, 1840.

SIR—

I have the honor to acknowledge the invitation of the State Medical Society to attend the debates during its present session. I shall have great pleasure in attending the Society this afternoon, during the delivery of the annual address of the President, &c. I regret exceedingly that the pressure of pub-

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lic duties will not permit me to avail myself more fully of the invitation. Will you do me the favor to make known to the Society my grateful acknowledgement of its invitation, my high respect for its members, and my ardent wishes for their successful promotion of medical science.

I am very respectfully,
Your ob't servant,
WILLIAM H. SEWARD.

THE HON. LAURENS HULL, M. D.
President State Medical Society.

The Society then proceeded to the election of officers for the ensuing year.

Upon counting the ballots it appeared that the following gentlemen were elected.

SUMNER ELY, *President.*
JOHN B. BECK, *Vice-President.*
PETER VAN OLINDA, *Secretary.*
PLATT WILLIAMS, *Treasurer.*

CENSORS.

Southern District.
DR. James R. Manley,
Edward G. Ludlow,
John C. Cheeseman.

Eastern District.
DR. Joel A. Wing,
Jonathan Eights,
Peter Wendell.

Middle District.
DR. E. B. Burroughs,
Augustus Willard,
Thomas Goodsell.

Western District.
DR. Lansingh Briggs,
William Taylor,
Lyman Clary.

On motion, unanimously

Resolved, That the bye-laws (Sect. 13) be so altered that the Committee of Correspondence consist of eight instead of seven members, one from each Senate District.

COMMITTEE OF CORRESPONDENCE.

DR. Chandler R. Gilman, 1st DISTRICT.
" William Horton, 2d do
" Robert G. Frary, 3d do
" William Tibbitts, 4th do
" Thomas Goodsell, 5th do
" Augustus Willard, 6th do

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Dr. Phineas Hurd, 7th District.
" Henry Maxwell, 8th do

The following gentlemen were elected permanent members:

Dr. John McClellan, of Columbia County.
" C. S. J. Goodrich, of Rensselaer County.

The following gentlemen were elected honorary members:

Dr. Placido Portal, Palermo, Sicily.
" George B. Wood, Pennsylvania.

COMMITTEE OF PUBLICATION.

Dr. T. R. Beck,
" Wing,
" McNaughton.

COMMITTEE ON PRIZE QUESTIONS AND DISSERTATIONS.

Dr. James Mc Naughton,
Jonathan Eights,
T. Romeyn Beck,
Robert G. Frary,
Eli Pierce.

The following gentlemen were nominated as permanent members:

Dr. Peter Van OLinda,
" Augustus Willard,
" Julius Rowley,
" Chandler R. Gilman,
" Alden March.
" Morgan Snyder.
" Wm. S. Norton.

The following were nominated as honorary members:

Dr. Joseph Parrish, *Philadelphia.*
" Landon C. Rives, *Cincinnati.*
" Benjamin W. Dudley, *Lexington, Ky.*
" Hugh L. Hodge, *Philadelphia.*

The following resolution was unanimously adopted:
This Society having learned with deep regret of the death

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of Dr. Calvin W. Smith, of Little Falls, a permanent member of this Society,

Resolved, That the President be directed to convey to the family of the deceased, the condolence of this Society on their bereavement.

The following resolutions were offered and adopted.

Resolved, That during the recess of this Society the Committee of publication be directed to take charge of the publications of the Society, and their distribution, and to transact all such business as has generally devolved on the Secretary.

Resolved, That the duties of the Secretary shall hereafter be considered as completed when he has transmitted a copy of the minutes to the Committee of publication, and entered the same on the minute book of the Society, together with the signature, affixing the seal, &c. to such diplomas, and other papers as are rendered necessary by the proceedings of the Society.

Dr. McNaughton from the Committee to whom was referred the communication from the Erie County Medical Society requesting an expression of opinion as to the construction of the law regulating the practice of physic and surgery in this state, reported as follows:

That they have examined said communication, and the several laws now in force, regulating the practice of physic and surgery with as much care as the limited time allowed them would permit, and submit the following as the result of their investigations.

1. Is a person who received a license or diploma from any institution or authority out of this state, prior to May 26, 1836, but who had neglected to file a copy of such diploma or license in the clerk's office of the county in which he resided, or failed to satisfy the medical society of such county that he had studied physic and surgery according to the requisitions of the 9th section of the law regulating the practice of physic and surgery passed in 1827, entitled to be admitted into any medical society, and to practice until he shall have been admitted by the censors of the State Medical Society?

Your Committee are unanimously of opinion that this question must be answered in the negative.

The 17th section of the law regulating the practice of physic and surgery, revised in 1827, and now in full force is as follows:

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Sect. 17. No person coming from another state or country shall practice physic or surgery in this state until he shall have filed a copy of his diploma with the clerk of the county in which he resides, and until he shall have exhibited to the medical society of that county, satisfactory evidence that he has regularly studied physic and surgery according to the requisitions of the 9th section of this title.

Having failed to comply with these requirements he never was a legal practitioner in this state, consequently he becomes subject to the law of May, 1836, in the same manner as if he moved into this state subsequently to that time.

2d. Is a citizen of this state who was admitted by any college or society out of this state, and had filed a copy of his diploma in the clerk's office prior to May 26, 1836, but had not made application to be admitted into the county medical society until that law went into operation, is such a person to be regarded according to that law as coming from another state or country?

A rigid construction would probably subject him to the operation of the law of 1836, inasmuch as he had only complied with a part of the requirements of sect. 17; having filed a copy of his diploma, but not furnished the medical society of the county with evidence that he had studied according to the provisions of section 9th.

When, however, the interval between the filing of this diploma was short, not affording an opportunity of satisfying the county society that he had studied according to the requirements of law, your Committee would recommend a liberal construction of the law; and that in such cases the applicant be admitted, should he exhibit evidence which would have entitled him to admission prior to May 26, 1836.

3d. Can a person whose diploma is derived from an institution or authority out of this state, become a member of any county medical society after the passage of the law of May, 1836, without a previous examination and license by the censors of the State Medical Society?

Your Committee are of opinion that he cannot. If he is not a legal practitioner prior to May 26, 1836, he becomes subject to the operation of that law, of course, having complied with the requirements of no other. In corroboration of this opinion your Committee beg leave to refer to the opinion of the Attorney General, to whom the following question was referred by the Society during the session of 1835.

"Is a diploma conferring the degree of Doctor of Medicine by a college out of the state, upon a student in any case, a license to practice physic and surgery in this state?"

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"In my opinion the above question should be answered in the negative."

SAMUEL BEARDSLEY,
Attorney General.

See Appendix to Transactions Vol. 4. page 9, (1838) for the rest of the opinion.

This opinion of the Attorney General does not apply to such persons as were legal practitioners in this state at the time of the passage of the law of 1836.

Respectfully submitted,
JAMES McNAUGHTON, *Ch'n.*

The above report was accepted and the following resolution adopted:

Resolved, That it be recommended to the respective county societies to admit members only in accordance with the principles of the foregoing report; and that a copy of the report together with the opinion of the Attorney General be transmitted to the Erie County Medical Society.

Adjourned to tomorrow, 11 o'clock, A. M.

THURSDAY, FEB. 6th, 11 o'clock A. M.

The Society met pursuant to adjournment.

The minutes of yesterday were read and approved.

The following resolutions were adopted.

Resolved, That this Society is opposed to any law recognizing more than one class of medical practitioners in this state.

Resolved, That the medical practitioners in the legislature and the comitia minora of the State Medical Society be requested to use their influence in preventing the passage of such a law.

The following resolutions were offered and adopted.

Resolved, That hereafter in the election of permanent members, one shall be alternately elected in the southern and eastern, and one alternately in the middle and western censor districts; and that the next election be made from the southern and middle districts.

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Resolved, That hereafter no person be elected a permanent member of this Society until the last year of his term as a delegate.

Resolved, That the President and Secretary audit the expenses for this meeting.

The minutes were then read and approved, and the Society adjourned.

P. VAN OLINDA, *Secretary.*

N. B. The Committee of Publication have also received the proceedings of the Broome County Medical Society, by which it appears that the proposition for abolishing the office of County Censors was rejected by that body.

XII. List of Officers *of County Medical Societies*, 1840.

Albany County.

Dr. Jonathan Eights, President,
Peter McNaughton, V. Pres.
Peter Van Buren, Secretary.
Henry Van OLinda, Treasurer.
J. H. Trotter, Librarian.

Censors—Henry Green.
John W. Hinckley.
B. P. Staats.
Jonathan H. Case.
J. S. Van Alstyne.

Dr. P. Van OLinda, Delegate.

Annual Meeting, Second Tuesday in November.

Allegany County.

Dr. John V. W. Abbott, President.
Calvin Allen, V. Pres.
C. D. Robinson, Secretary.
James Bell, Treasurer.

Censors—Dr. C D.Robinson.
C. Allen.
E. H. Willard.
James Bell.
A. P. Willard.

Annual Meeting in December.

Broome County.

Dr. O. T. Bundy, President.
George Burr, V. Pres.

Censors—Dr. George Burr.
S. D. Hand.

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S. D. Hand, Secretary.
H. Griswold, Treasurer.
Silas West, Auditor.
Tracy Robinson, Librarian.

Silas West.
S. H. French.
N. S. Davis.

Annual Meeting in September.

Chenango County.

Dr. William D. Purple, Pres. *Greene.*
William G. Sands, V. Pres. *Oxford.*
Daniel M. Wakeley, Secretary, *North Norwich.*
Wm. G. Sands, Treasurer, *Oxford.*
Henry Mitchell, Librarian, *Norwich.*

Censors—Augustus Willard.
Wm. G. Sands.
Charles H. Mitchell.
James Harrington.
Austin Rouse.

Augustus Willard, *Greene*, Delegate.

Annual Meeting, Second Tuesday in October.

Columbia County.

Dr. Samuel R. McClellan, President.
John M. Pruyn, V. Pres.
R. Rossman, Secretary.
Geo. H. White, Treas. & Librarian.

Censors—George N. Cook.
A. Van Dyck.
R. G. Frary.
H. A. Heermans.
Joseph Bates.

Annual Meeting in October.

Cortland County.

	Censors.
Dr. M. Goodyear, *Cortlandville*, Pres.	M. A. Webster, *McGrawville.*
P. H. Burdick, *Preble*, V. Pres.	F. Hyde, *Cortlandville.*
G. W. Bradford, *Homer*, Secretary.	A. B. Shipman, *Cortland.*
A. B. Shipman, *Cortland*, Treas.	G. W. Bradford, *Homer.*
F. Hyde, *Cortlandville*, Librarian.	J. W. Jones, *Freetown.*

Dr. G. W. Bradford, Delegate.

Delaware County.

Dr. Ferris Jacobs, *Delhi*, President.
M. T. Peake, Vice President.
E. Steele, *Delhi*, Secretary.
E. T. Gibbs, Treasurer.

Censors—Dr. E. Steele.
F. Jacobs.
C. R. Fitch.
A. P. Mann.
C. Howard.

Annual Meeting in May.

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Dutchess County.

Dr. Richard A. Varick, President.
Nelson Andrews, V. President.
Edmund F. Grant, Secretary.
William Thomas, Treasurer.

Censors—Dr. John Cooper.
W. Hughson.
E. P. Grant.
A. H. Smith.
W. H. Hopkinson.

Annual Meeting, Second Tuesday in November.

Herkimer County.

Dr. H. W. Doolittle, *Herkimer*, Pres.
J. R. Brown, *Salsbury*, V. Pres.
A. F. Doolittle, *Herkimer*, Secretary.
J. L. Sherwood, *New Port*, Treasurer.

Censors—Lester Green.
Moses Johnson.
F. B. Ethridge.
Walter Booth.
Snyder.

Lester Green, *Little Falls*, Delegate.

Annual Meeting, First Tuesday in June.

Kings County.

Dr. John B. Zabriskie, President.
Putcell Cooke, V. President.
Theodore F. King, Secretary.
F .W. Hurd, Treasurer.

Censors—Thomas B. Downing.
Bradley Parker.
Cyrus Frinke.
George Marvin.
Henry Willsher.

Theodore S. Mason, Delegate.

Livingston County.

Dr. D. P. Bissell, Pres. *Moscow.*
J. McMaster, V. Pres. *Lakeville,*
W. E. Lauderdale, Secretary and Treasurer, *Geneseo.*

Censors—D. H. Bissell, *Geneseo.*
Wm. Butler, *Lima.*
E. P. Metcalf, *Geneseo.*
J. McMaster, *Lakeville.*
G. O. J. Durell, *York.*

Madison County.

Dr. V. W. Mason, President, *Canastota.*
F. Rice, Vice President, *Cazenovia.*
A. A. Mason, Secretary, *Morrisville.*
O. Mead, Treasurer, *Nelson.*

Censors—O. Mead.
A. Foord.
S. S. Spooner.
E. B. Burroughs.
A. G. Purdy.

Dr. E. B. Burroughs, Delegate.

Annual Meeting, Last Tuesday in July.

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Montgomery County.

Dr. Simon Snow, President.
Joseph White, Vice President.
A. T. E. Hilton, Secretary.
Morgan Snyder, Treasurer.

Censors—Joshua Webster.
John Atwater.
J. Davy Matthews.
Stewart.
J. G. Snell.

Morgan Snyder, *Fort Plain*, Delegate.

New-York County.

Dr. Francis U. Johnson, President.
Wm. W. Miner, Vice President.
B. R. Robson, Treasurer.
B. B. Coit, Corresponding Secretary.
Dudley Atkins, Recording Secretary.

Censors—Isaac Wood.
Henry D. Bulkley.
James O. Pond.
James McDonald.
Thomas Chalmers.

Chandler R. Gilman, Delegate.

Niagara County.

Dr. P. P. Murphy, President.
E. Gillis, Vice President.
D. S. Fassett, Secretary.
R. Sharp, Treasurer.
J. S. Shuler, Corresponding Secretary.
D. S. Fassett, Auditor of Accounts.

Censors—F. L. Taylor.
I. S. Kidder.
H. H. Wilkins.
C. H. Burgess.
L. Woodworth.

Asa B. Brown, Delegate.

Oneida County.

Dr. J. F. Trowbridge, Pres. *Bridgewater*,
H. Norton, Vice President, *Utica*.
D. Thomas, Rec. & Cor. Sec'y, *Whitestown*.
C. B. Coventry, Treas. & Lib., *Utica*.

Censors—C. B. Coventry.
G. W. Pope.
A. Blair.
P. Sedgwick.
J. V. Cobb.

Thomas Goodsell, Delegate.

Onondaga County.

Dr. L. J. Tefft, Pres., *Marcellus*.
M. Philips, V. Pres., *Syracuse*.
N. R. Tefft, Secretary, *Onondaga*.
G. Smith, Treasurer, *Syracuse*.

Censors—Lyman Clary,
Hiram Hoyt.
J. C. Stuart, *Syracuse*.
A. H. Newcomb, *Salina*.
N. R. Tefft, *Onondaga*.

Lyman Clary, Delegate.

Annual Meeting in January.

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Orange County.

Dr. James Heron, President.
John T. Jansen, Vice President.
James S. Horton, Secretary.
Jerome Wells, Treasurer.
James S. Horton, Librarian.

Censors—John T. Jansen.
James Heron.
Merit H. Cash.
Samuel D. Holly.
Bartow Wright.

William Horton, Delegate.

Annual Meeting, First Tuesday in May.

Rensselaer County.

Dr. Samuel McClellan, President.
Thomas Blatchford, Vice President.
E. F. Crandall, Recording Sec'y.
Alonzo Streeter, Cor. Secretary.
James Thorn, Treasurer.
James Christie, Curator.

Censors—Amatus Robbins.
Hiram Watkins.
A. J. Skilton.
Luther H. Barber.
Zachariah Lyon.

C. S. J. Goodrich, Delegate.

Annual Meeting in June.

Schoharie County.

Dr. M. E. Goff, President.
Wm. Lament 3d, Vice President.
Julius Rowley, Secretary.
Peter S. Swart, Treasurer.

Censors—P. S. Swart.
C. H. Van Dyck.
D. H. Kibbe.
S. B. Wells.
Wm. Lamont 3d.

Dr. Julius Rowley, *Cobleskill Centre*, Delegate.

Tompkins County.

Dr. E. Curtis, Pres. *Danby.*
M. C. Kellogg, V. Pres. *Newfield.*
Wm. Bacon, Sec'y., *Ithaca.*
John Stevens, Treas., *Ithaca.*
Henry Sayles, Librarian, *Ithaca.*

Censors—Wm. Bacon, *Ithaca.*
Henry Sayles, *Ithaca.*
J. E. Hawley, *Ithaca.*
S. D. Clark, *Trumansburg.*
M. C. Kellogg, *Newfield.*

Annual Meeting in May.

Washington County.

Dr. Russell Clark, President.
Matthew Stevenson, Vice President.
James Savage, Recording Sec'y.
Henry G. Gray, Corresponding Sec'y.
Hiram Corliss, Treasurer.

Censors—George Gillis.
Erskine G. Clark.
Richard Sill, Jr.

William S. Norton, Delegate.

Annual Meeting in June.

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YATES COUNTY.

Dr. Joshua Lee, Pres., *Penn Yan.*
Uri Judd, V. Pres., *Penn Yan.*
J. Hatmaker, Sec'y., *Penn Yan.*
Henry Spence, Treas., *Starky.*

Censors—E. Doubleday, *Italy.*
J. L. Cleaveland, *Benton Centre.*
Joshua Lee, *Penn Yan.*
W. Wolcott, *Starky.*
Uri Judd, *Penn Yan.*

Annual Meeting, First Tuesday in June.

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TRANSACTIONS

OF

THE MEDICAL SOCIETY

OF THE

STATE OF NEW-YORK.

VOL. IV.—PART I.

TO BE CONTINUED ANNUALLY.

ALBANY:
PRINTED BY J. MUNSELL, STATE STREET.

1838.

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An Act to amend title seventh, chapter fourteenth, of the first part of the Revised Statutes and for other purposes. Passed May 26, 1836.

[The following law was published on the cover of the Transactions for 1836, but is not been transferred into the Transactions. It will be in the next publication.]

The People of the State of New-York represented in Senate and Assembly, do enact as follows:

§ 1. The thirteenth section of title seventh of chapter fourteenth of the first part of the Revised Statutes, is hereby amended, so that it shall read as follows:

No student who has attended one or more courses of medical lectures, shall be admitted to an examination by any medical society, except of the county in which he shall have pursued his medical studies for four months immediately preceding his attendance upon his last course of lectures, or by the censors of the State Medical Society.

§ 2. The seventeenth section of said title seventh, is hereby amended so that it shall read as follows:

No person coming from another state or country, shall practice physic or surgery in this state, until he shall have been examined and licensed by the censors of the State Med. Society.

§ 3. The medical Faculty of Geneva college are hereby authorised to appoint a delegate to represent them in the State Medical Society, with all the powers and privileges which delegates from the respective medical colleges of this state possess.

§ 4. This act shall take effect immediately after its passage.

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TRANSACTIONS

OF

THE MEDICAL SOCIETY

OF THE

STATE OF NEW-YORK.

VOL. IV.—PART II.

TO BE CONTINUED ANNUALLY.

ALBANY:

PRINTED BY J. MUNSELL, 68 STATE STREET.

1839.

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The author of the essay on the Statistics of Medical Colleges respectfully solicits communications, for the purpose of completing the tables.

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